

south of the Ganges in Bhagulpore and the Sonthal Pergunnahs, and steps were taken to establish a mining company at Deoghur, in which several persons of position have taken shares. The coal mines of the Sonthal Pergunnahs are at present unimportant. In Monghyr slate is quarried with success to meet a local demand, and the stone quarries of Rajmehal are said to be well worked by the Rajmehal Coal Company.

9. *Trade and Commerce.*—The trade of the division forms the subject of an interesting chapter of the report, from which the Lieutenant-Governor is able to form a conception not only of the commodities which the division imports and exports, but also of the trade routes and chief places of trade. From Mr. Barlow's remarks, however, on this occasion, it is not always possible to measure the extent of the year's transactions. No doubt the want of registering machinery is the main cause of this, but having now stated the products in which trade is carried on, and the channels through which it flows, the Commissioner should find less difficulty in future reports in stating whether trade in each commodity has been slack or brisk. From the report now under review, it appears that the principal exports were oilseeds, barley, grain, pulses, rice, wheat, tobacco, hides, and indigo from Monghyr, Bhagulpore, and Purneah. The special crops of the Maldah district were unremunerative, the great abundance of mulberry leaves having led to a fall in the price of silk, and a severe storm in the early part of the year having destroyed the mango blossoms and caused a failure of the crop. The principal import of the division is piece-goods from England, which are believed by the Commissioner to supply about 70 per cent. of the total demand in all districts. Liverpool salt is imported to a great extent. Much cotton is imported for the manufacture of country cloth, but the trade in raw cotton has diminished owing to the competition of English yarn.

The registration of Nepal traffic at the frontier station, though in consequence of the large number of trade routes between Nepal and British territory, it is by no means exhaustive, suffices to show the existence of a very extensive trade. The chief articles of import from Nepal—food-grains and oilseeds—have shown a decrease during the year under review. Among the exports to Nepal, a decrease has taken place under the heads of molasses, ginger, salt, spices, jute, gram, English yarn and piece-goods and medicines, while dhal and kalai, brass metal-ware, country cloths and English goods generally show a marked increase.

10. *State of public feeling.*—Public feeling, which was as usual confined to the upper classes, was exercised chiefly on the subjects of Local Self-Government, the Criminal Procedure Code Amendment Bill, and the Tenancy Bill. With regard to the first measure, the division seems to be at least apathetic, if not actively averse, to any alteration in existing arrangements. In the Sonthal Pergunnahs Mr. Oldham, the Deputy Commissioner, mentions that among the many persons to whom he has spoken, and who might be expected to interest themselves in the measure, one only—a gentleman who himself admits that in any local board constituted in his part of the country his influence must be supreme—has made any response. With regard to the Criminal Procedure Bill, the Commissioner observes that, like the Local Self-Government Bill, "it has only created interest among the Europeans and educated natives. As a matter of fact, the former, official and non-official, are to a man dead against the measure, and of the latter only the most advanced and English-speaking section for it." The Tenancy Bill has excited less interest among the tenants than might have been expected. "They are not," says Mr. Barlow, "aware of the provisions of the Bill, and most of them do not even know that a change in the rent law is contemplated. In the Bhagulpore Division, as in other parts of the country, the knowledge which the illiterate classes possess of anything happening outside their own villages is limited in the extreme. In portions of Belrai a feeling seems to be getting abroad (how created it is impossible to say) that after all the Bill may not be passed; and this feeling is said to depress the interest which even literate ryots take in the matter. That there are no grounds for the feeling makes it none the less operative." The public press seems to be represented solely by the *Bhagulpore News*, to which the Commissioner gives a favourable character, while expressing his regret at the smallness of its circulation.

11. *Administrative changes.*—The reduction in the number of outstalls noticed last year has produced satisfactory results, and is believed to have checked drunkenness. It has been followed by some decrease of revenue. An increase of revenue and a decline in consumption have followed the enhancement of the duty on ganja. The Commissioner reports very favourably regarding the reduction in the duty on salt, which is, he states, now 30 per cent. cheaper everywhere than was the case formerly. The remaining changes took place in the criminal administration. The new Criminal Procedure Code was introduced throughout the division, and a system of regular police was established in the Sonthal Pergunnahs. The former has shown itself to be a great administrative improvement, by setting at rest doubtful interpretations of the former law, and the latter would appear to have been urgently needed. The Commissioner remarks—"It was a well known fact that there was a mass of unreported crime" in the Sonthal Pergunnahs, "but none of us expected to find the new agency almost swamped at the outset by the flood of work, as they have been at least at Godda."

12. *Police and Crime.*—The number of cognizable cases reported (11,514), and the percentage of these returned as true (95.5), were practically the same as in the previous year; but it is satisfactory to learn that serious offences against property declined from 8,483 to 8,069. An improvement has also taken place in the ratio of convictions to arrests, which has risen from 65.3 to 66.1. The result is creditable to the police of the division as a whole, though the conduct of the Purneah Police is unfavourably mentioned, while that of the police of Bhagulpore was on one occasion at least far from satisfactory. The results of police investigations were worse in the Sonthal Pergunnahs than elsewhere, but it may be hoped that some improvement will be shown when the new police has become more acquainted with the district than is the case at present. The necessity for the change of system which has taken place is shown in the large increase in reported cases. The Deputy Commissioner observes that, while crime is scarce among the Sonthals proper, the Dosadh emigrants of the Deoghur sub-division are almost all thieves, and they are closely followed by the Mal Paharias of the plains. The number of non-cognizable cases instituted showed some decrease, but fewer successful prosecutions were instituted than in the previous year.

13. *Civil Justice.*—Taking the division as a whole, the civil litigation of the year was characterized by the same features as that of 1881, namely a slight increase in the number of suits, and a slight decline in the value of the property in dispute. Forty-one thousand nine hundred and seventy-one cases of the average value of Rs. 99 were instituted, against 40,199 of the average value of Rs. 104 in the previous year. The fluctuations in classes of suits in the several districts were unimportant, with the exception of a large increase from 1,149 to 2,166 in the number of rent suits instituted in Maldah, attributed somewhat vaguely by the Collector to "general causes which affect the country at large, and not to any strained relations between landlords and tenants." The Commissioner doubts whether these relations are satisfactory anywhere, and attributes to them the general increase in the number of rent suits. The existence of an unsatisfactory state of things between landlords and tenants is clearly indicated by the following remarks of the Munsif of Beguserai, quoted by the District Officer:—

"I am not in a position to state in detail the cases in which exactions of illegal cesses by zemindars come to light; but I can say for certain that the exaction of such cesses is very common among the zemindars and petty landholders of this sub-division. Road and Public Works cesses are generally levied at more than the legal rates, and *neg, haq, patwari, kewali*, &c., not unfrequently occur as items of demand along with rent. In addition to all these illegal cesses, village expenses is not an uncommon cess amongst all classes of zemindars. The condition of the ryots in those estates which are managed by the underlings of the landlords is of course very deplorable, and the system leads to all sorts of abuses, such as the withholding of *sarkhatis* (clearance receipts), &c."

The proportion of suits withdrawn, compromised, confessed, or decided *ex parte*, to the total number instituted, was about 60 per cent. The question of the appointment of a Subordinate Judge for the Monghyr district, and of a Munsif at Supul, will be considered in the Judicial Department.

14. *Land and Land Revenue.*—The total land revenue demand, arrear and current, for the division, amounted to Rs. 33,46,880, of which Rs. 32,97,204

were collected and Rs. 4,986 remitted. Of the total balance, Rs. 49,605 are under the head of current, and Rs. 12,723 under that of arrear demand. This result is satisfactory, and the fact that in every district the collection exceeded the current demand is creditable to the officers concerned. Of the balance at the close of the year, the largest proportion was due from the Maldah district, and has since been realized. Some progress has been made in clearing off the arrears in the Sonthal Pergunnahs, and the change effected last year in the date of payment has produced good results everywhere, except in the Godda sub-division, regarding which a separate report should, if necessary, be made. The state of things in Rajmehal, where the *mahajans* took advantage of the transfer of an experienced sub-divisional officer to make a practice of anticipating the Government demand by seizing ryots' fields and threshing-floors, indicates strongly the necessity for constant vigilance on the part of the local officers. The collections in the remaining Government estates, the current demand on which amounts to Rs. 91,619, were good, and considerable progress was made in clearing off arrears. Some advance was made in clearing the files of partition cases, of which only 150 cases remained pending at the close of the year, against 185 at the end of March 1882. On the whole, the relations between landlords and tenants are considered by the Commissioner to have been somewhat better than in the previous year, but there is still abundance of evidence in the report to show that the state of things is by no means what it should be.

15. *Road and Public Works Cesses*.—Of the arrear balance of Rs. 72,055 outstanding at the commencement of the year, nearly three-fourths were collected. The current demand amounted to Rs. 6,47,019, of which Rs. 6,14,692 were collected. The year thus closed in a slightly worse position than it began. The falling off was, however, apparent only, owing to the non-arrival of a remittance transfer receipt on account of the Durbhunga Raj payments till after the close of the year. Revaluations have been completed in the districts of Maldah, Bhagulpore, and Monghyr, and 20 estates were revalued in the Purneah district which had been erroneously valued owing to the inclusion of *abwabs* or *algis* in addition to the annual rental in the annual value of the estates or tenures. From the remarks on this head, which have been made by the Collector of Purneah, it is evident that the action of Government in foregoing any advantage from the levy by zemindars of illegal cesses has as yet suggested to the ryots as a body no idea of the illegality of those cesses. This affords another among the multitude of proofs which the country furnishes of the crying want of such a record of rights and rents as will limit the demands of zemindars and their representatives to what they have a legal right to recover.

16. *Excise*.—The following table extracted from the report shows the comparative revenue from excise sources of the division for the year under review and previous years:—

	Gross revenue. Rs.	Charges. Rs.	Net revenue. Rs.
Average of years from 1877-78 to 1881-82	10,01,049	37,929	9,63,120
1881-82	11,46,606	37,722	11,08,884
1882-83	11,21,749	37,552	10,84,197

The highest point reached by the revenue of the division was in the year 1880-81, since which a falling off has taken place amounting to Rs. 49,695 in 1881-82 and Rs. 74,551 in the year under review. The decrease has been general under all heads of revenue except imported wines and spirits, chandu and ganja, and has been especially marked in the case of country spirits, which have fallen off to a great extent in the Bhagulpore district, and in a less degree in Monghyr, Purneah, and Maldah. The decrease was in all cases due to large reductions in the number of spirit shops, and in Bhagulpore it is said that certain outstill shops on the borders of the Sonthal Pergunnahs were closed or removed to unprofitable localities. The Lieutenant-Governor is glad to learn that the reduction of shops has had a good effect on the habits of the people, but, when accounting for diminished drinking, it must be remembered that the year was one of less general prosperity than its immediate predecessors, and that the amount of money available among the poorer classes for the purchase of liquor was probably less also.

The revenue from ganja, which is, after country spirits, the principal source of excise income, rose to Rs. 3,50,194 against Rs. 3,37,548 in 1881-82, the average for the five years from 1877 to 1882 being Rs. 2,89,121, and it is gratifying to observe that the increase in revenue was accompanied by a considerable decline in consumption. A slight decline took place also in the consumption of opium. One important attempt to smuggle opium was detected during the year. The offenders were convicted.

17. *Stamps.*—The revenue from stamps of every kind, other than postage and telegraph labels, rose considerably during the year, thus—

	1881-82.	1882-83.
	Rs.	Rs.
Judicial or court-fee stamps, and stamps for copies	6,43,632	6,59,653
Non-judicial stamps including (1) one-anna revenue stamps;		
(2) bills of exchange or <i>hundi</i> stamps; (3) impressed		
stamps; and (4) other non-judicial stamps	2,00,048	2,16,131

The increase in the sale of judicial stamps is in fact a natural consequence of the increase in the number of civil suits, and is in part due to the collection of road-cess process fees by court-fee stamps. A slight decline in the sale of *hundi* stamps in Purneah and Monghyr is attributed to the freer use now made of money-orders than formerly. With this exception, the increase has—leaving out of account a few minor fluctuations—been general, and is attributed to some particularly heavy loan transactions, to the more general use of receipt stamps, and to the issue of certificates to newly passed mukhtars and revenue agents. The Commissioner quotes some remarks by the Collector of Bhagulpore regarding the extent to which the use of receipt stamps is at present evaded. It is not possible for the Government to do much to check this evil, which will decrease of itself, as the consequences of breach of the law become better understood by the people at large. It is, however, important that judicial officers should direct their attention to the punishment of such omissions to stamp documents as come to their notice.

18. *License-tax.*—The total amount of assessment fell from Rs. 1,94,970 in 1881-82 to Rs. 1,83,700 in the year under review. A considerable portion of this sum appears to have been outstanding at the close of the year, but the balance on the 1st June amounted to Rs. 3,328 only. Remissions were made amounting in the aggregate to Rs. 11,494, and Rs. 7,350 were refunded. Nearly two-thirds of the balance were due from Monghyr, and the remainder from Bhagulpore and Maldah. The Commissioner attributes the tendency to decline in the assessment, which is becoming apparent rather to defective organization than to any decrease in the means of assesseees. The establishments are, he considers, insufficient to find out new assesseees, while some of the old ones always have to be let off. Mr. Barlow's remarks on this subject will be considered in the Financial Department.

19. *Monetary arrangements.*—Deducting the receipts from and issues to Government treasuries outside the division, the receipts and issues of notes amounted respectively to Rs. 44,46,610 and Rs. 13,43,965, against Rs. 33,83,245 and Rs. 12,82,890 in the previous year. The increase is attributed to increased facilities for the exchange of notes for cash, to the revival of trade, and to the payment of large sums in notes on account of sale proceeds of defaulting estates. The transactions would be larger than at present were it possible to cash notes always on demand, but the cost of remittance of cash is so heavy, that this cannot always be managed. The competition of postal savings banks has led to a decrease in the number of depositors in the Government institutions and in the amount deposited. Stock-notes have not so far proved a success. The Commissioner's remarks regarding the disposal of accumulations of pice in the Government treasuries of Purneah and the Sonthal Pergunnahs will be forwarded to the Comptroller-General.

20. *Communications and other public works.*—The only line of railway of importance in the division is the East Indian, of which the management, judging by the returns of serious accidents, would seem to be as satisfactory as in former years. Complaints are, however, frequently made of the unpunctuality of trains, and of delay in forwarding produce due to insufficiency of rolling-stock. The popularity of the line has been increased by a reduction in the price of third class tickets, the number of third class passengers booked in the division

having risen from 444,442 in 1881 to 507,171 in 1882. The new line from Baidyanath to Deoghur was opened during the year, and has already become popular. The bridge across the Dharna might, the Commissioner suggests, be utilized for the conveyance of foot and cart traffic, if the proprietors would agree. The Commissioner should mention in his next report the result of his negotiations to this end. The northern part of the division will, it is hoped, soon have railway communication with all parts of Northern Bengal; and arrangements are, it is understood, under consideration for the construction of a line from Bhagulpore to Bowsee by a private company. There are no large irrigation works in the division, and the details given in the report are unimportant. The several Road Cess Committees appear to be doing good work, though their exertions have been for the most part confined to the improvement of existing roads, the construction of bridges, and the completion of minor roads. The total funds, including balances from the previous year at the disposal of the Committee during the year ending on the 30th September 1882, amounted to Rs. 6,09,722, of which Rs. 5,62,332 were expended. In Bhagulpore, Monghyr and the Sonthal Pergunnahs, much progress, but in Purneah and Maldah, less appears to have been made in the direction of planting trees along roadsides. The matter is one of importance, and it seems probable that, if the attention of zemindars and other wealthy persons were properly directed to it, their co-operation might be secured, and would be of value both in planting new trees and in protecting those already planted from injury.

21. *Education.*—The total number of schools in the division has fallen from 7,757 to 7,620, the loss being almost confined to lower vernacular and indigenous schools, but it is probable that the decline is due rather to some alteration in the system of enumeration than to any retrogression in the matter of education, as the number of pupils has risen during the period under review from 89,403 to 89,628. It is to be regretted, however, that there has been a falling off of five in the already small number of girls' schools. It is hoped that a system of rewards for girl pupils attending the central examination recently introduced may to some extent counteract the apparent loss of interest in female education. The expenditure on education shows an increase of over Rs. 32,000, and it is gratifying to learn that half this sum has been subscribed from local sources. The number of Sonthals under instruction has risen from 6,444 to 6,839, and though the return shows a slight falling off in the numbers of Paharias attending school, the Deputy Commissioner of the Sonthal Pergunnahs observes that the number of pupils belonging to the primitive races, in which are included Sonthals, Hillmen, Kols, Moholis, and Dhangars have very greatly increased under the influence of a system of payment to the gurus for their pupils belonging to these races whereby the pupils themselves receive free education. The details of the system have been recently modified, but the principle is still observed, and is apparently justified for the present by the results. It is doubtful if its ultimate tendency can be good, and it should be very carefully watched with a view to its discontinuance as soon as the backward state of the district will allow. Experience has shown generally that people do not value, and hence do not profit by, a gratuitous system of education as much as by instruction for which they have to pay. The statistical results of the working of the Educational Department in the division throughout the year will be considered in connection with the report of the Director of Public Instruction.

21. *Committees.*—The Commissioner speaks favourably regarding the Road Cess and Municipal Committees of the division, the members of which seem generally to have shown much interest in their duties. The Monghyr Municipality was as well managed as usual, and the improvement which took place last year in the management of the Bhagulpore Municipality was maintained in the period under review. The inauguration of the project for the supply of good drinking water will effect a great and much-needed improvement. Considering the smallness of its income, the Purneah Municipality did as well as could be expected.

The Education Committees generally are reported to have shown little interest in their work—a state of things put down as a rule to the

absence of any real executive functions for the Committees to exercise. The good work done by the Committee in the Sonthal Pergunnahs would, however, seem to show that this cause is not the only one for the apathy of Educational Committees. Regarding it the Deputy Commissioner writes:—

"I cannot speak in sufficiently high terms of the working members of the District Education Committee. All are officials, and each one has practical knowledge of the district and its requirements, and the business to be dealt with, besides holding strong and clear opinion of his own. There is frequently much difference of opinion, but I have never known a majority to make any serious mistake; and so entirely do I rely on the wisdom and experience of this Committee, that I never carry out the smallest measure connected with primary education or with the zillah school without consulting them."

22. *Kishengunge Exhibition and Fair.*—A very creditable effort made by Mr. Weekes, the district officer of Purneah, to get up an exhibition and fair at Kishengunge, met with considerable success. In future years it will probably be possible to rely less for success on shows and amusements, and more on the more solid advantages of the fair.

23. *Wards.*—The number of estates under the management of the Court of Wards at the commencement of the year was 14, and one new estate was brought under management before its close. No estates were released. The new estate, that of Srinagar in the Purneah district, has a rent-roll of about Rs. 2,75,000, and pays a revenue to the Government of about Rs. 60,000. The proprietors own one-half of the ancestral property of the family of Raja Lilanand Singh. The only other important estates under management are the Chanchal property in Maonh, of which the demand for rent, including arrears, was Rs. 2,20,544, and the Surjapore estate in Purneah, of which the demand was Rs. 2,18,206. Both estates are entirely free from debt.

24. *Conduct of Zemindars.*—On the whole, relations between zemindars and the ryots are by no means satisfactory. Some improvement is reported to have taken place in the feeling on the Baneli estates and on those of Maharaja Sheo Prasad Singh and Raja Ramnarayan Singh, but there is still much to be desired. The Commissioner mentions unfavourably the conduct of the sons of Maharaja Gopal Chandra Singh of the Sonthal Pergunnahs. The zemindars most commended are the Thakurs of Barari and the Thakurain of Lachmipore in the Bhagulpore district, and Baboo Tares Chandra Pande of the Sonthal Pergunnahs. Raja Ram Ranjan Chakravarti, who resides in Beerbhum, but has large estates in the Sonthal Pergunnahs, is also commended for his justice and capacity for business.

25. *Character of Officers.*—The Commissioner's remarks on this subject will be considered in the Appointment Department. Mr. Barlow singles out for special praise Messrs. Oldham and Pratt among the covenanted officers, and Messrs. W. M. Smith, C. F. Manson, Baboos Sarada Prasad Chatturji, Umacharan Bose, and Sasi Bhusan Dutt among the Deputy Collectors.

In conclusion, the Lieutenant-Governor thanks Mr. Barlow for a very excellent report.

By order of the Lieutenant-Governor of Bengal,

A. P. MACDONNELL,

Offg. Secretary to the Government of Bengal.

LIBERALITY OF THE MAHARAJAH OF KEONJHUR.

No. 905T—G., dated Darjeeling, the 22nd September 1883.

From—A. P. MACDONNELL, Esq., Officiating Secretary to the Government of Bengal, General Dept.,
To—The Superintendent of the Tributary Mehals, Cuttack.

I AM directed to acknowledge the receipt of your letters Nos. 915 and 1378, dated the 22nd June and 28th August 1883, regarding the offer made by the Maharajah of Keonjhur of a donation of Rs. 5,000 for the construction of a hostel to be attached to the Ravenshaw College at Cuttack, and of Rs. 3,000 for the advancement of the Cuttack girls' school, which you propose to invest in Government securities for the foundation of two scholarships to be granted to pupils of the school who, after passing the lower vernacular scholarship examination in Uriya, prosecute their studies further.

2. The Lieutenant-Governor has much pleasure in accepting these donations, and desires that an expression of his thanks may be conveyed to the Maharajah for his liberality.

No. 915, dated Cuttack, the 22nd June 1883.

From—A. SMITH, Esq., Superintendent of the Tributary Mehals,
To—The Secretary to the Government of Bengal, General Department.

I HAVE the honour to forward, for the information of Government, a copy of a letter from the Maharajah of Keonjhur offering donations of Rs. 5,000 for the construction of a hostel in the neighbourhood of the Ravenshaw College and Rs. 3,000 for placing on a stable basis the Cuttack girls' school, and providing for the teaching of Uriya in it.

2. I recommend that both donations be accepted, and that the acknowledgment of Government be given to the Maharajah for them.

3. The Maharajah wishes that the hostel be named after me. I have of course no objection to the naming of any useful institution after me, but I would prefer that it should be named after the Maharajah himself, and perpetuate in the province the memory of his good work.

4. I will communicate with the managers of the girls' school regarding the best mode of utilizing the donation of Rs. 3,000 for that institution, and the Maharajah's proposal to name the institution after Mr. Ravenshaw, to which they will no doubt readily consent.

Dated the 5th June 1883.

From—MAHARAJAH DHUNOORJOY NARAIN BHUNJ DEO, Keonjhur,
To—The Superintendent of the Tributary Mehals.

It is hardly necessary to dwell on the inestimable benefits which the people of Orissa have derived from the establishment of a college in Cuttack. The results of the last University examination have been remarkably successful. But I have been informed that, for want of a suitable students' boarding-house, the students are obliged to live in the bazar, where they are without any control or supervision, and this want of control and supervision at home leads to many evils. It will be a good thing to have a students' boarding-house in the neighbourhood of the college, and I am willing to contribute towards the erection of such a house. I have been told that Rs. 5,000 will be enough for the purpose. I shall be happy to pay this sum for the purpose, and shall send the money on the receipt of a reply to this.

The establishment of a college at Cuttack originated with Mr. Ravenshaw, and it is a great pleasure to see the college named after him, but the continuance and stability of that institution are due to your efforts. I shall feel highly obliged if you allow the proposed students' boarding-house to be named after you. I hope you will oblige me by a compliance with this request.

I have also been informed that there has been a girls' school at Cuttack for a long time, and it is doing a very useful work. The stability of that institution ought to be secured, and I shall be happy to do anything to give it that stability. I shall gladly give a donation of Rs. 3,000 for the institution, and shall feel obliged if, in consultation with the School Committee, you suggest some investment by which this sum may yield a permanent help to the school. I should like to attach this condition that Uriya should be taught in the school, and the proceeds of this investment should be utilized for the purpose. I have of course no objection to any other language being taught in the school. I have a further request in the matter, and that is that Mr. Ravenshaw first started the school and contributed towards its establishment; the school should be named after him.

SUPPLEMENT TO THE CALCUTTA GAZETTE, OCTOBER 3, 1883. 1595

No. 1378, dated camp Balasore, the 25th August 1883.

From—W. R. LARMINIE, Esq., Officiating Superintendent of the Tributary
Mehals.

To—The Secretary to the Government of Bengal, General Department.

IN continuation of paragraph 4 of this office No. 915 of the 22nd June last, I have the honour to report that I have, as directed, consulted the Managing Committee of the Hindu girls' school at Cuttack with reference to the proposal made by the Maharajah of Keonjhur to place the school on a permanent basis, and to provide in it for the teaching of Uriya. The Managing Committee are glad to accept the handsome offer made by the Maharajah, and propose to invest the amount in Government securities, and to devote the proceeds to the encouragement of the Uriya language. The Committee have furnished me with a statement showing the financial position of the school, from which it appears that the ordinary income is sufficient for the teaching of both Bengali and Uriya, and so long as this continues, it will, I think, be best to found with the proceeds of the money two scholarships, to be granted to those who, after passing the lower vernacular scholarship examination in Uriya from the school, prosecute their studies further. I have made this suggestion to the Managing Committee, who have acquiesced therein, and I now request that the acceptance of the Maharajah's offer may be intimated, and the thanks of the Government to the Maharajah for his liberal donation be communicated, and the whole correspondence published in the *Calcutta Gazette*, and also in the *Uriya Govt Gazette*, as soon as possible.

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Rainfall, Weather, and State and Prospects of the Crops

Statement showing Rainfall, Weather, and State and Prospects of the Crops in the different Districts of Bengal, as reported to Government during the week ending the 29th September 1883.

No.	District, and date of return.	Rainfall at Sudder Station in inches.	Character of the weather, state and prospects of the crops, and state of health at date.
BENGAL.			
<i>Western Districts.</i>			
1	Burdwan, Sept. 29 '83	Nil	Weather—very close. Rain has fallen in some parts of the district, but more is urgently wanted. Paddy on the high lands is in a precarious state.
	Culna,	3.04	
	Cuttia,	2.3	
	Raneebunga,	0.05	
2	Bankura, " 29	0.46	Weather—at the beginning of the week hot and clear, at its close cloudy and humid. <i>Biri kalai</i> (black pulse), <i>kherua</i> cotton, and other high land crops are doing well, but the late rice crop has suffered slightly from want of rain.
	Bishenpore,	0.02	
	Maliara,	0.88	
	Khatra,	0.50	
3	Beerbhoom, " 29	0.27	Weather—generally fine and dry. One or two slight showers. Rain still wanted for the crops. A few seasonable showers have done much good. Health of district satisfactory.
	Rampore Haat,	0.55	
4	Midnapore, " 29	0.16	Weather—hot. Rain is wanted everywhere. Crops doing well. Public health fair.
5	Hooghly, " 29	0.28	Weather—hot. Prospects of crops pretty good, but rain much required, especially in Jehanabad and Serampore sub-divisions. General health fair for the time of year.
	Howrah Oct. 1 "	1.12	Mornings cool. Heavy rain on 29th. <i>Amun</i> rice and sugarcane thriving. Jute being cut; crop not very good.
	Oelooberia,	1.21	
<i>Central Districts.</i>			
6	24-Pergunnahs, Oct. 1 '83	2.26	Weather—hot and dry. Harvesting of early paddy nearly finished. Late crops doing well. More rain wanted. Public health generally good.
7	Nuddea, Sept. 29 "	0.35	Weather—cloudy and cool. Rain is needed throughout the district for the <i>amun</i> rice, which is suffering for want of it.
	Kooshtea,	0.04	
	Meherpore,	1.68	
	Choadaanga,	0.32	
	Ranaghat,	2.28	
8	Khoolna, " 29	1.29	Weather—close and dry until close of the week when rain fell. More rain is wanted, but crops have not suffered materially and are generally good. Public health good.
9	Jessore, " 29	3.23	Weather—hot and cloudy, with occasional rain. Rain during the week has to some extent removed the apprehension entertained of grave injury to the <i>amun</i> crop. More rain is wanted. Deaths from fever reported from Bongong, and cases of cholera from Narail.
	Jhenida,	0.61	
	Magura,	0.22	
	Narail,	2.77	
	Bongong,	Nil	
10	Moorshedabad, " 29	0.57	Weather—hot and cloudy, with occasional slight showers. The rainfall during the week proved extremely beneficial to the late rice crop, which has, however, suffered greatly from the late drought. It is feared that this crop will be a light one. A good deal of fever is reported from the north of the district.
11	Dinagepore Sept. 28 '83	4.67	Weather—cloudy, with scanty rain in the southern part, and heavy showers in other parts of the district. <i>Bhadoi</i> cutting nearly finished. <i>Amun</i> prospects fair. More rain is wanted in the southern part of the district. Rice selling at from 17 to 25 seers per rupee.
12	Rajshahye, " 29	0.25	Weather—cooler in mornings, hot sun in day, and very light showers of rain occasionally. <i>Ropa</i> paddy in parts of the district is beginning to require rain urgently. The <i>bhil</i> paddy is good. Sugarcane fair. Two light showers in Nowgong have been useful for transplanting <i>ganja</i> .
	Nowgong,	0.21	
13	Rungpore, " 29	1.53	Weather—hot, with occasional rain. Want of rain is universally complained of. The recent rain in the Nilphamari and Kurigram sub-divisions has done much good. Fever prevalent in some places.
	Kurigram,	4.30	
	Gaibanda,	1.56	
	Nilphamari,	4.67	
14	Bogra, " 29	1.98	A copious fall of rain took place early in the week, and two or three showers subsequently, so that the weather is now cool again. The rain on 24th was very beneficial to the <i>amun</i> crop, but more is required, especially in thanas Khetia and Badalgachhi, where the crops are said to be still suffering much for want of rain. Fever is still prevalent.
15	Pubna, " 29	1.78	Slight rain, with cooler weather. The rivers to the east rising slowly; those fed from the Ganges falling rapidly. Winter rice much damaged for want of rain. Jute crop very poor.
16	Darjeeling, " 29	3.15	Weather—seasonable. Harvesting of Indian-corn, millets, and <i>aus</i> paddy nearly completed. Prospects of potatoes and late paddy good in the hills. The rainfall of the week has done much good to the standing crops in the Terai. Public health good.
17	Julpigoree, " 29	7.33	Weather—seasonable. Rice promising. Poor harvest of jute. Sugarcane backward. Public health good.
	Cooch Behar up to 26th.	19.23	Weather—fair and seasonable. Prospects of late rice good. Tobacco cultivation put back by heavy rain of last week. Jute being still cut. Public health good.
	Dinbatta,	5.0	
	Mathabhanga up to 22nd.	13.44	
	Meckligunge up to 22nd.	10.91	
<i>Eastern Districts.</i>			
18	Dacca Sept. 29 '83	1.81	Weather—cloudy, with occasional rain and sunshine. <i>Aus</i> paddy and jute are being cut. Prospects of crops in Nawabganj are not favourable owing to sudden rise of water, and those of <i>amun</i> crop in Shabbar are not good owing to decrease of water.
	Manickganj,	0.27	
	Munshiganj,	0.36	
	Narsingunge,	2.85	
19	Farredepore, " 29	1.82	Weather—dry and excessively hot in the early part of the week, since which it has been gloomy and cool. The rivers have fallen, but the moderate rain has done good. Sugarcane doing well, and the other crops fairly. Public health fair.
	Golundu,	2.08	
	Madaripore,	0.69	
20	Backergunge, " 27	1.79	Weather—seasonable. <i>Aus</i> crop has been gathered in. Rain is much needed for the <i>amun</i> crop in the high lands. General health good.
21	Mymensingh, " 28	2.96	No rain till 26th, when there was a good fall except in the south. Weather hot with overcast sky. The rain on 26th will do much good to the transplanted rice crop which was beginning to suffer, but there is still prospect of a fair crop. Health good.
	Kishoreganj,	0.26	
	Attea,	0.12	
	Netrokona,	3.41	

No.	District, and date of return.	Rainfall at Sudder Station in inches.	Character of the weather, state and prospects of the crops, and state of health at date.
BENGAL—concl.			
<i>Eastern Districts.—concl.</i>			
CHITTAGONG DIVN.	22 Chittagong, Oct. 2 '83	7.14	Weather—seasonable. Prospects favourable. Rain has done good to standing crops. Prices steady. Cattle-disease still continues.
	23 Noakholly, Sept. 27 "	5.44	Weather—raining almost continuously during the last two days of the week; wind southerly. Young <i>amun</i> plants promising; rain has done much good to them.
	24 Tipperah, " 27 "	2.77	Heavy rain and light southerly wind. State and prospects of crops good, much improved by the rain.
	25 Brahmanbaria " "	2.27	
	Chandpore " "	1.50	
	Chittagong Hill Tracts, 25 "	1.30	Weather—occasionally cloudy throughout the week. A shower of rain on the night of the 24th. Harvesting of <i>jum</i> paddy crop still continues. Plough paddy progressing well.
HILL TIPPERAH	Hill Tipperah, 26 "	0.82	Weather—hot, with occasional rain. Prospects of <i>amun</i> and sugarcane favourable. Public health good.
BEHAR			
PATNA DIVN.	26 Patna, Sept. 29 '83	0.48	Weather—hot. <i>Bhadoi</i> crops nearly gathered. Rain still wanted in Behar sub-division. Cholera still reported from Behar town.
	27 Behar, " 29 "	1.18	
	28 Gya, " "	0.35	Light clouds and showers. Weather not very hot. Rain is very badly wanted and quickly. Where irrigation has been possible there may be a fair outturn. In other places the rice crop will be very bad. Cholera is still hanging about the town of Gya. Prices stationary.
	29 Shahabad, " "	1.32	Weather—seasonable. Prospects of crops on the ground favourable, but more rain wanted.
	30 Buxar, " "	0.86	
	31 Sasseram, " "	Nil	
	32 Durbhunga, " "	0.58	Weather—seasonable; getting cooler. Outturn of <i>bhadoi</i> crops fair. Prospects of <i>aghani</i> crop good, and would be still better for more rain. Health good. Prices rising slightly.
	33 Mozafferpore, " "	0.19	A strong sun has alternated with showers, but the rainfall has been insufficient. The <i>bhadoi</i> crops are being rapidly harvested, and the <i>aghani</i> much requires rain
	34 Hajeeapore, " "	0.45	
	35 Seetamarhi, " "	1.56	
BHAGDWARA DIVN.	31 Saran, " "	0.15	Weather—close and sultry during day, becomes cooler in the latter part of the night. Prospects still fair, but rain most urgently wanted all over the district for rice crop. Cases of fever reported. Public health otherwise good.
	32 Sewan, " "	0.50	
	33 Gopalgunge, " "	Nil	
	34 Champurun, " "	...	Weather—hot. Reaping of <i>bhadoi</i> crops is being pushed on. Rain much wanted for paddy. General health on the whole good. Some cases of fever reported from the interior.
	35 Monghyr, Sept. 29 '83	0.98	Weather—hot and clear. Prospects of <i>aghani</i> crop continue generally good. Public health good.
	36 Beguserai, " "	1.67	
	37 Bhagulpore, " "	0.22	More rain urgently wanted for high land paddy, otherwise prospects favourable.
	38 Soopole, " "	1.30	
	39 Banka, " "	Nil	
	40 Purneah, " "	0.55	Weather—normal. Prospects much improved by the rain of last week and are now generally good, though more rain will be required to bring the <i>aghani</i> crop to maturity, especially in the Sudder sub-division. Fever prevails all over the district.
ORISSA DIVN.	36 Attrareah, " "	4.62	
	37 Maldah, " "	3.17	
	38 Maldah, " "	1.90	Weather—dry and hot. Some good has been done to the rice crop on the low lands by the moderate rainfall of this week, but the crop has generally suffered from insufficient rain at this season. General health good.
	39 Sonthal Perghs, " "	0.39	Weather—very bright and hot till 28th, when there was rain. More rain wanted, except in Dumka, where the heavy rain of 28th has done much good.
	40 Deoghar, " "	0.29	
	41 Godda, " "	2.38	
	42 Rajmehal, " "	Nil	
	43 Jamtara, " "	1.33	
	44 Pakour, " "	Nil	
CHOTA NAGPORE.			
<i>South-West Frontier Agency.</i>			
41	Hazaribagh, Sept. 28 '83	0.25	Weather—warm and close. Prospects of all crops continue favourable. <i>Bhadoi</i> harvest nearly brought to an end with a fair outturn. Public health good.
42	Lohardugga, " 29 "	0.81	Weather—bright and warm. Prospects good. Autumn crops still being harvested; outturn under an average. Prices easier. Fever reported from different places.
43	Daltongunge, " "	0.21	
44	Singbhum, " 28 "	1.98	Weather—close and hot; no rain till 27th. The rain of 27th will do much good. Prospects continue favourable. General health fair, with the exception of much fever. Cholera reported from one village.
45	Manbhum, " 29 "	2.64	Weather—clear and warm. Prospects of crops good. Small-pox continues at Govindpore; otherwise public health good.
		0.71	

Published for general information.

Meteorological Report of the Province of Bengal

Meteoro	LOGICAL DIVISION.	DISTRICT.	Representative station.	STATION OBSERVATIONS.													
				AIR PRESSURE.			WIND.		TEMPERATURE.								
				Mean barometric height, 10 A.M.	Mean reduced to sea-level.	Variation from mean.	Precipitating direction.	Mean wind velocity.	Highest during week.	Lowest during week.	Mean maximum temperature.	Mean minimum temperature of week.	Mean daily temperature of week.	Variation from normal mean of week.	Mean 10 A.M. temperature.	Average humidity at 10 A.M.	Average cloud amount at 10 A.M.
Orissa.	SOUTH-WEST BENGAL.	Pooree	Gopalpore	29°772	29°823	—	C	134	87°6	79°8	85°2	80°9	83°1	—	84°0	82%	6°1
		...	False Point*	29°807	29°828	+0°28	V	140	89°0	75°1	86°9	77°5	82°3	-0°8	82°3	85	7°8
		Cuttack	Cuttack	29°738	29°819	+0°39	Calm	27	94°4	75°8	90°7	78°0	84°3	+0°6	85°2	78	6°4
		Balasore	Balasore	29°754	29°813	—	SSW, S	58	92°0	77°6	88°7	78°1	83°4	—	85°1	77	6°4
		South-West Midnapore	Saugor Island	29°796	29°824	+0°23	SW	151	91°2	77°5	89°3	79°4	84°3	+0°5	84°2	82	7°1
		South 24-Pergunnahs	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Midnapore	Midnapore	29°685	29°820	—	SE, C	—	90°5	74°8	88°2	76°4	82°3	—	86°6	72	6°3
		24-Pergunnahs	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Howrah	Calcutta	29°796	29°818	+0°13	SW	62	90°5	76°7	88°7	78°2	83°5	+1°0	84°1	80	8°6
		Hooghly	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Bengal.	EAST BENGAL.	Burdwan	Burdwan	29°726	29°826	+0°23	V	69	93°6	75°9	91°8	78°4	85°1	+0°9	85°0	77	8°1
		Bankoora	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Beerbhoom	Raniganj	29°446	—	—	V	75	91°5	74°2	90°4	76°7	83°6	—	84°8	75	6°0
		West Burdwan	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Moorsheadabad	Berhampore	29°757	29°824	+0°02	SSW	77°7	92°7	74°3	90°9	78°2	84°6	+0°2	85°2	79	7°4
		Nuddea	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Jessore	Jessore	29°801	29°833	+0°31	SW	51	93°3	76°4	90°5	78°1	84°3	+0°6	84°5	84	9°4
		Khoolna	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Chittagong	Chittagong	29°781	29°871	+0°42	E & SE	99	88°1	73°0	85°3	75°7	80°5	-1°4	83°2	84	7°0
		Chittagong Hill Tracts	Demaguri	...	...	...	...	...	...	...	...	...	...	...	...	...	...
North Bengal.	NORTH BENGAL.	Backergunj	Barrisal	29°805	—	—	SSW & SE.	324°4	87°5	73°4	81°4	76°6	79°0	—	81°2	86°7	7°1
		Noakholly	Noakholly	29°807	29°847	—	SE	23°3	89°9	74°0	84°9	76°1	80°5	—	80°3	88	9°7
		Furreedpore	Furreedpore	29°765	—	—	SE	84°8	89°5	74°9	87°1	78°1	82°6	—	83°1	85	6°7
		Dacca	Dacca	29°804	29°839	+0°32	S & SE	62	90°8	75°6	86°7	78°2	82°5	-0°9	84°0	83	8°9
		Commillah	Commillah	29°821	29°856	—	SE	—	86°1	74°8	79°9	76°2	78°1	—	79°8	90	7°3
		Mymensingh	Mymensingh	29°798	—	—	C & SE	113	91°3	76°1	87°9	78°2	83°1	—	84°2	79	8°7
		Bogra and Pubna	Serajgunge	29°74	—	—	S	117	80°9	74°7	86°7	77°2	82°0	—	83°1	83	7°9
		Rajshahye	Rampore Beaulah	29°706	29°780	—	V	75	93°6	73°6	90°7	77°4	84°6	—	85°5	75	5°0
		Dinagepore	Dinagepore	29°697	29°817	—	SE, ENE	96	90°6	73°1	88°6	76°0	82°3	—	84°3	83	6°1
		Rungpore	Rungpore	29°710	29°835	—	V	86	89°8	73°6	87°7	75°9	81°8	—	82°5	84	7°8
North Bihar.	SOUTH BENGAL.	Julpigoree	Julpigoree	29°506	29°797	—	NE	99	87°9	72°1	83°8	73°0	78°4	—	78°4	91	8°4
		Cooch Behar	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Darjeeling Hill Districts	Darjeeling	23°013	—	—	W	151	70°6	51°9	64°9	54°6	59°8	—	68°1	99	8°6
		Purneah	Purneah	29°686	29°819	+0°11	Calm	21	92°2	72°4	89°1	76°3	82°8	+0°1	82°0	79	6°6
		Mozafferpore	Durbhunga	29°646	29°814	-0°36	ESE	55	90°9	74°0	80°3	77°4	83°3	+0°3	85°8	83	4°8
		Chumparan	Motihari	—	—	—	SE	117	88°1	74°9	85°5	77°1	81°3	—	85°9	77	4°9
		Sarun	Chupra	29°591	—	—	SE & C	3	93°1	74°0	90°4	77°1	83°3	—	88°2	97	3°1
		Dehree	...	29°452	28°804	—	SSW	—	89°4	79°0	88°5	80°1	84°3	—	83°7	77	1°1
		Shahabad	Buxar	29°557	29°797	—	NW	72	94°9	76°7	92°0	79°5	85°7	—	89°4	70	3°0
		Arrah	Arrah	29°585	29°780	—	ESE	63	92°4	74°7	89°8	78°5	84°2	—	87°2	77	3°1
Cuttia Nagpur.	SOUTH BHAR.	Gya	Gya	29°468	29°780	-0°06	C	28	95°2	72°8	93°8	74°3	84°1	+0°8	91°1	68	5°0
		Patna	Bankipore	29°617	29°800	+0°14	V	64	96°0	76°7	94°7	79°7	87°2	+3°1	87°7	73	4°3
		South Bhagulpore	Bhagulpore*	29°662	29°810	—	SE	52	92°4	75°5	91°3	77°7	84°3	—	86°1	71	2°6
		Monghyr	Doomka	29°366	—	—	V	—	93°6	72°8	90°7	76°0	83°4	—	84°9	86	1°7
		Sonthal Pergunnahs	Hazaribagh	27°827	29°804	+0°37	W	93	89°5	71°9	86°4	73°0	79°8	+1°4	82°5	69	6°7
		Lohardogra	Ranchedi	27°699	29°806	—	—	—	88°7	67°7	86°3	69°5	78°1	—	81°9	70	6°1
		Manbhoom	Chyebassa	29°040	—	—	NW	—	—	73°7	—	76°6	—	—	—	85°	73	5°1

Explanation of Summary.—The normal means of air pressure and temperature are the arithmetical averages or means of the readings during the same period. The humidity of the atmosphere is expressed as a percentage, saturated air being represented by 100. A clear sky is denoted by 0 and an overcast sky by 100. The "normal" means are the numerical means or averages of the rainfall in that district determined from the returns sent in by the sub-divisions from that district, (i.e.) the total rainfall at the sub-divisional stations in the district sending in returns divided by the number of stations. A rainfall of 100 means that the rainfall is equal to the normal mean.

* Mean of 6 days.

or the week ending Friday, the 28th September 1883.

Number of week in month of week observing stations.	DISTRICT OBSERVATIONS.											METEOROLOGICAL DIVISION.	
	RAINFALL.												
	Of week.		Since 1st of month.			Since 15th May.			Average number of rainy days during the week.	Normal number of rainy days of week.	Representative station.	DISTRICT.	
Mean for district.	Normal average for mean.	Mean for district.	Normal mean.	Variation.	Mean for district.	Normal mean.	Variation.						
1'87	—	—	—	—	—	—	—	—	—	—	Gopalpore	... } Pooree	... } ORISSA.
1'78	0'87	1'88	10'27	9'71	+0'56	56'22	45'04	+11'18	3'8	3'5	False Point	... } } ...
1'14	1'18	1'99	9'99	8'93	+1'06	56'23	43'56	+12'67	2'3	3'3	Cuttack	... } } ...
0'20	0'67	2'45	5'90	10'96	-5'06	49'10	46'22	+2'88	2'2	2'9	Balasore	... } } ...
1'44	0'83	2'09	6'73	10'71	-3'98	49'05	52'65	-3'60	2'7	2'9	Saugor Island	... } } ...
1'03	0'32	2'40	2'94	8'11	-5'17	39'28	45'41	-6'13	1'0	3'2	Midnapore	... } } ...
0'15	0'70	2'00	8'33	8'25	-4'92	42'00	45'93	-3'84	2'6	3'4	Calcutta	... } } ...
0'08	2'10	1'79	3'77	7'31	-3'54	46'10	41'31	+4'79	2'0	2'7	Burdwan	... } } ...
0'05	0'31	1'89	4'79	8'14	-3'35	49'28	46'49	+2'79	1'4	2'9	Ranigunge	... } } ...
0'49	1'37	2'64	4'20	10'22	-6'02	37'81	45'27	-7'46	2'4	3'4	Berhampore	... } } ...
0'00	2'35	2'94	8'14	-5'20	32'50	45'00	-12'50	1'3	3'1	....	Nuddea	... } } ...
1'13	1'99	1'03	4'86	8'16	-3'30	38'52	48'19	-9'67	2'9	3'4	Jessore	... } } ...
0'00	6'10	3'69	16'37	13'62	+2'75	120'67	117'05	+3'62	6'0	4'0	Chittagong	... } } ...
			3'03	12'42			70'57			3'8	Demagri	... } } ...
3'15	3'62	3'05	7'79	11'20	-3'41	52'46	70'95	-18'49	4'2	3'8	Barrisal	... } } ...
3'91	2'83	3'69	16'68	17'30	-6'62	104'46	100'46	+4'00	5'0	4'3	Noakhally	... } } ...
1'22	2'03	2'27	4'06	8'82	-4'76	38'60	51'54	-12'94	3'0	3'3	Furreedpore	... } } ...
2'31	1'37	2'35	2'81	10'20	-7'39	39'43	56'20	-17'07	4'0	2'9	Dacca	... } } ...
3'13	5'73	3'01	10'77	11'20	-6'48	61'23	64'94	-3'71	4'8	4'0	Commillah	... } } ...
2'22	2'25	4'17	4'23	13'19	-8'96	41'85	62'86	-21'01	2'5	4'4	Mymensingh	... } } ...
0'13	1'98	3'74	2'86	10'26	-7'40	34'32	52'30	-17'98	2'3	3'5	Serajunge	... } } ...
0'29	0'72	3'71	2'62	11'28	-8'66	27'75	49'06	-21'31	2'7	3'5	Rampore Bealeah	Rajshahye	... } ...
3'28	1'44	2'18	5'18	11'04	-5'86	39'06	55'17	-16'11	3'0	3'5	Dinagepore	... } } ...
1'16	2'54	3'94	8'31	13'23	-4'92	51'17	71'10	-19'93	5'0	3'8	Rungpore	... } } ...
2'29	8'58	4'77	25'45	21'32	+4'13	112'00	105'60	+6'50	4'8	4'2	Julpigoree	... } } ...
3'15	4'63	6'39	18'81	24'12	-5'31	137'35	141'30	-3'95	5'5	5'2	Darjeeling	... } } ...
0'51	0'85	3'61	7'02	12'50	-5'48	51'12	54'20	-3'08	2'4	3'0	Purneah	... } } ...
0'34	0'73	2'99	3'47	8'71	-5'24	39'71	38'69	+1'02	1'8	2'5	Durbhunga	... } } ...
0'27	0'69	2'32	1'88	7'15	-5'27	31'44	39'81	-8'37	1'0	2'7	Motihari	... } } ...
0'43	0'32	2'61	4'20	7'65	-3'45	54'58	37'36	-2'78	1'0	2'7	Chupra	... } } ...
—	—	—	—	—	—	—	—	—	—	—	Dehree	... } } ...
0'28	0'47	1'79	5'71	6'33	-6'62	29'35	35'78	-6'43	0'7	2'9	Buxar	... } } ...
1'18	—	—	—	—	—	—	—	—	—	—	Arrah	... } } ...
0'35	0'19	1'61	5'03	5'55	-0'52	37'01	30'46	+0'55	1'0	2'4	Gya	... } } ...
—	0'16	2'07	4'02	6'47	-2'45	49'88	33'97	+4'91	0'7	2'6	Bankipore	... } } ...
0'14	0'38	2'01	5'19	6'89	-1'70	36'71	38'11	+1'40	1'0	2'9	Shagulpore	... } } ...
0'10	0'81	2'36	4'87	9'40	-4'53	38'69	45'51	-6'82	1'5	3'1	Doomka	... } } ...
0'23	1'19	1'90	9'93	7'34	+2'5	40'80	43'77	-3'47	2'2	2'1	Hazaribagh	... } } ...
0'09	1'95	1'49	7'64	7'36	+0'28	44'34	42'96	+1'38	2'0	3'0	Ranchee	... } } ...
0'29	1'98	1'56	7'02	8'11	-1'69	36'23	47'36	+2'87	3'0	3'4	Chyebassa	... } } ...
											Singbhum	... } } ...

period for the past 12 years. The variations are *negative* when the mean for the week is less than the corresponding normal mean and *positive* when greater than 10. The number denoting cloud amount represent the part of the sky covered, the whole sky being denoted by 10. Under the head "district observational stations for the period in question during the past 12 years. The "means for the district" are the numerical averages of the rainfall returns received by a one on which at least an hundredth of an inch fell.

Statement of Rainfall in Bengal for the week ending Friday (6 p.m.), the 28th of September 1883.

Meteorological division.	District.	Station.	RAINFALL.						Total.		Average total rainfall from 1st to 28th September.	Total rainfall since 15th May.	Average rainfall from 15th May to date.		
			Saturday, 22nd September.	Sunday, 23rd September.	Monday, 24th September.	Tuesday, 25th September.	Wednesday, 26th September.	Thursday, 27th September.	Friday, 28th September.	Number of rainy days.	Rainfall week.				
ORISSA	Pooree	Pooree	0.51	0.42	0.66	0.21	0.18	0.24	6	1.62	12.27	9.13	49.59	39.22	
		Khurdah	0.23	0.23	0.02	0.20	0.12	0.37	0.56	0.87	57.94	47.53	—	—	
		Banpur	0.25	0.06	0.06	0.20	0.06	0.70	0.45	11.81	9.18	55.28	41.83	—	
		False Point	—	—	—	—	—	0.82	7.45	10.68	62.06	61.65	—	—	
	Cuttack	Hookitola	—	—	—	—	—	—	—	—	—	—	—	—	
		Jagatsingapore	0.78	0.58	0.03	0.05	0.55	0.04	4	1.90	12.88	9.79	63.79	47.03	
		Banki	—	—	—	—	—	—	—	Nil	6.45	8.91	50.51	44.80	
SOUTH-WEST BENGAL	Balasore	Cuttack	1.24	0.02	—	0.00	0.00	—	—	—	—	—	—	—	
		Kendrapara	—	—	—	—	—	—	—	—	—	—	—	—	
		Jajpore	—	—	—	—	—	—	—	—	—	—	—	—	
		Chandballi	—	—	—	—	—	—	—	—	—	—	—	—	
		Bhadruck	—	—	—	—	—	—	—	—	—	—	—	—	
		Sorah	—	—	—	—	—	—	—	—	—	—	—	—	
	Midnapore	Balasore	0.40	—	—	—	—	—	—	—	—	—	—	—	
24 Pergunnahs	Midnapore	Jeliasore	—	—	—	—	—	—	—	—	—	—	—	—	
		Baripodah	0.05	—	—	—	—	—	—	—	—	—	—	—	
		Contai	0.23	0.19	—	—	—	—	2	0.42	4.82	11.28	49.96	51.99	
		Saugor Island	0.09	—	—	0.08	0.07	1.35	4	1.59	10.64	10.19	54.90	53.95	
		Tumlook	—	—	—	—	0.50	—	1	0.50	3.30	8.41	43.50	44.66	
		Midnapore	—	—	—	—	—	0.16	1	0.16	4.27	7.17	38.03	41.86	
	Ghatatal	—	—	—	0.31	—	—	—	1	0.31	1.25	8.77	36.31	49.75	
Burdwan	Howrah	Diamond Harbour	—	—	—	—	—	—	—	—	—	—	—	—	
		Alipore Jail	—	—	0.01	—	0.11	—	2	0.12	3.21	9.12	36.80	49.33	
		Barrackpore	—	—	0.80	—	0.25	—	2	1.05	2.47	7.37	38.60	44.00	
		Dum-Dum	0.20	—	0.03	—	0.08	—	3	0.33	3.05	8.14	39.11	45.03	
		Baraset	—	—	—	—	0.81	—	1	0.81	2.89	8.95	37.17	44.30	
		Buseerhat	0.02	—	—	0.04	—	0.91	4	1.22	5.09	8.21	54.85	47.31	
	Howrah	Howrah	0.38	0.31	0.01	0.08	—	—	4	0.78	3.99	8.08	36.49	46.13	
Bankura	Hooghly	Mohesreka	—	1.09	—	0.08	—	—	2	1.17	4.91	7.94	46.03	47.43	
		Serampore	—	—	0.96	—	0.09	0.02	3	1.10	2.42	8.03	40.34	44.06	
		Hooghly	—	0.06	0.16	0.05	0.01	4	0.28	3.34	7.25	43.98	42.07	—	
		Jehanabad	—	0.13	—	—	—	1	0.13	1.89	9.49	47.35	49.03	—	
		Culna	1.64	1.40	—	0.50	—	—	3	3.54	5.21	6.10	44.55	39.02	
		Burdwan	0.08	—	—	—	—	—	1	0.08	1.34	7.80	52.23	41.74	
	Ganegunge	2.30	—	—	—	—	0.39	2	2.68	4.78	8.54	41.52	43.20	—	
Bankura	Bankura	Bankura	—	—	0.23	0.17	0.06	3	0.46	5.18	7.37	45.46	45.39	—	
		Bishenpore	0.02	—	—	—	—	—	1	0.02	2.86	7.21	42.76	45.69	—
		Malisara	—	—	0.88	—	—	—	1	0.88	4.55	5.53	41.62	43.24	—
		Khatra	—	—	0.41	0.09	—	—	2	0.50	7.04	9.14	47.03	51.12	—
		Beerbhoom	Bh. Soory	—	—	0.21	—	0.06	2	0.27	3.04	9.97	62.08	48.19	—
		Hetampore	—	—	—	—	—	—	—	Nil	3.54	11.02	42.68	51.61	—
	Nuddea	Bongong	—	—	2.28	—	—	—	—	—	1.50	8.00	36.99	46.23	—
Khulna	Jessore	Ranaghat	—	—	—	—	—	—	1	2.28	5.43	6.43	47.42	41.70	—
		Kishnaghur	—	—	—	—	0.23	0.12	1	0.35	2.69	7.05	21.78	41.54	—
		Choodanga	—	—	—	—	0.32	—	1	0.32	1.30	9.80	23.80	47.48	—
		Meherpore	—	1.23	0.45	—	—	—	2	1.68	3.17	7.61	31.56	43.43	—
		Koositea	0.04	—	—	—	0.72	—	2	0.76	3.54	9.97	33.44	49.05	—
		Satkira	—	—	0.15	—	3.02	1	3.03	6.28	8.00	55.16	47.08	—	
	Ghaghata	—	0.05	0.76	0.05	0.10	1.52	3	1.77	7.24	8.65	43.99	54.43	—	
Jessore	Moorshedabad	Narail	0.09	1.32	1.31	0.21	4	2.93	4.47	7.28	32.30	43.13	—	—	
		Jessore	0.03	1.14	0.05	1.91	0.10	5	3.23	5.44	7.22	36.24	48.23	—	—
		Jhendah	—	—	—	0.61	—	1	0.61	1.98	8.86	28.40	49.71	—	—
		Magoorah	—	—	0.22	—	0.83	2	1.05	2.43	8.28	37.22	45.02	—	—
		Kandi	—	—	0.32	—	0.15	0.11	3	0.58	4.26	10.19	42.25	46.74	—
		Rampore Haut	—	—	0.52	0.03	0.05	3	0.60	6.17	10.39	46.03	45.75	—	—
	Ghaghata	Berhampore	0.16	—	0.10	—	0.23	—	3	0.49	2.66	10.58	35.55	46.53	—
Chittagong	Backergunge	Lalbagh	1.53	—	—	0.19	2	1.72	2.75	11.15	32.52	41.68	—	—	
		Azimgunge	2.10	—	—	0.50	2	2.60	4.60	9.32	38.06	45.23	—	—	
		Jungipore	—	—	0.55	—	1	0.55	3.10	9.82	31.83	43.37	—	—	
		Lalgola	0.58	—	0.06	2.41	3	3.05	5.85	10.11	57.42	44.18	—	—	
		Cox's Bazar	0.16	0.80	0.38	0.77	0.25	1.67	7	4.08	17.10	14.47	138.01	121.11	—
		Chittagong	0.64	0.83	0.59	1.16	4.99	5	8.12	15.67	12.79	103.35	113.00	—	—
	Ranamati	0.01	0.41	0.13	0.62	0.34	0.91	1.50	7	3.02	10.30	12.49	64.10	75.98	—
Dacca	Furreedpore	Ruma	0.12	0.25	0.29	0.36	1.95	0.37	6	3.17	8.80	10.79	51.89	55.82	—
		Agartola	0.16	0.98	0.25	0.96	1.95	0.71	5	5.61	9.47	10.69	56.76	77.60	—
		Patuakhally	0.40	0.27	1.10	0.90	0.85	5	3.52	8.24	13.23				

Statement of Rainfall in Bengal for the week ending Friday (6 p.m.), the 28th of Sept. 1883—concluded.

Meteorological division.	District.	Station.	RAINFALL.							TOTAL.		Average total rainfall from 1st to 28th September.	Total rainfall since 15th May.	Average rainfall from 15th May to date.
			Saturday, 22nd September.	Sunday, 23rd September.	Monday, 24th September.	Tuesday, 25th September.	Wednesday, 26th September.	Thursday, 27th September.	Friday, 28th September.	Number of rainy days.	Rainfall of week.			
NORTH BENGAL	Pubna	Pubna	....	....	....	....	0'22	1'56	2	1'78	3'08	10'48	28'96	50'31
		Serajunge	....	....	0'09	....	....	0'10	....	2	0'19	1'78	9'45	40'74
	Bogra	Sherpore	....	....	1'05	....	....	....	1'45	2	2'50	3'13	11'12	31'72
		Nowkhilla	....	0'09	1'66	....	0'55	....	0'14	4	2'44	3'53	10'26	27'46
Rajshahye	Bogra	Bogra	....	....	1'54	....	0'18	....	0'26	3	1'98	2'82	10'83	38'20
		Panchbibi	....	....	0'15	....	....	....	1'34	2	1'49	2'96	9'48	31'29
	Bogra	Benuleah	....	....	0'01	0'01	....	0'03	0'20	4	0'25	3'62	11'21	26'37
		Nattore	....	....	....	....	....	....	....	—	Nil	0'95	11'92	23'77
Malda	Malda	Malda	....	....	0'30	1'29	....	0'24	....	6	1'90	2'28	10'70	32'09
		Mohadebpore	....	....	....	0'10	....	....	0'48	1	0'48	3'33	9'71	35'15
	Dinajepore	Churamon	....	....	....	0'05	0'08	0'03	0'26	6	0'10	5'85	14'36	35'95
		Kaigunge	....	0'05	0'08	0'03	0'26	0'34	0'03	6	0'79	4'31	9'77	49'74
Rungpore	Rungpore	Dinajepore	....	0'12	0'46	....	3'75	0'05	....	4	4'38	7'21	10'33	48'76
		Baloorhat	....	0'34	0'33	....	....	0'11	....	3	0'78	1'55	—	34'74
	Rungpore	Bhawanigunge	....	....	1'56	....	....	0'05	0'28	3	1'89	3'36	12'18	46'44
		Rungpore	0'22	0'04	0'06	....	0'54	0'40	....	5	1'26	8'41	12'25	45'35
Cooch Behar	Kurigram	Kurigram	0'85	0'06	0'36	....	0'22	0'25	....	5	1'74	6'96	12'45	69'54
		Baguogra	0'85	0'06	2'38	0'10	0'92	0'15	0'72	7	5'25	14'49	15'88	71'11
	Julpigoree	Julpigoree	1'18	4'85	0'18	....	0'91	6'18	....	5	7'33	30'24	23'72	133'90
		Julpigoree	....	....	....	....	....	....	....	—	—	—	—	107'54
COAST BEHAR	Cooch Behar	Dinhatta	1'86	1'58	0'86	....	0'08	0'07	....	5	4'45	12'88	21'34	68'27
		Cooch Behar	1'45	4'05	3'05	....	0'03	....	0'08	5	8'65	28'22	20'66	120'42
	Micklunge	Micklunge	0'25	2'38	7'15	....	0'33	....	....	4	10'11	25'73	18'65	100'79
		Matabhangha	0'16	6'77	4'67	....	0'68	0'06	....	5	12'33	30'19	22'24	130'59
Darjeeling Hill.	Buxa	Buxa	....	4'50	0'95	....	0'28	0'03	0'36	5	6'12	26'60	31'78	171'96
		Siliguri	0'31	0'30	1'51	....	....	....	....	3	2'12	5'72	—	—
	Darjeeling	Darjeeling	0'22	0'76	0'35	1'40	0'11	0'31	....	6	3'15	11'94	16'48	102'75
		Kalimpong	0'57	0'81	....	0'95	0'15	0'29	....	5	2'77	7'90	—	98'42
NORTH BEHAR	Purneah	Kissengunge	0'31	....	0'60	....	0'09	....	0'19	4	1'28	7'45	12'30	50'40
		Arraresh	....	....	....	....	1'68	....	....	1	1'68	10'68	14'1	61'89
	North Bhagulpore	Purneah	0'18	0'13	....	....	0'16	....	0'08	4	0'55	5'42	14'07	34'55
		Madnapore	....	0'65	0'05	....	....	....	0'04	3	Nil	4'17	10'11	54'86
DURHANNA	Durbhunga	Soopool	....	....	0'05	....	....	....	0'04	—	0'74	7'09	10'35	44'91
		Tajpore	....	....	0'08	....	....	0'45	....	2	Nil	4'35	7'47	42'71
	Mozufferpore	Durbhunga	....	....	0'16	....	....	1'42	0'37	3	0'53	2'62	8'59	39'98
		Madhubani	....	....	....	....	....	....	....	3	1'95	2'98	10'26	42'11
Mozufferpore	Sitamarhi	Sitamarhi	....	....	0'47	....	....	1'02	....	2	1'40	2'42	8'34	33'07
		Mozufferpore	0'04	....	....	....	0'15	....	....	2	0'19	4'83	10'28	46'61
	Chuniparun	Hajipore	0'06	0'08	....	....	....	....	....	2	0'14	3'63	7'32	33'75
		Motihari	....	....	....	....	0'35	....	....	1	0'35	0'78	7'21	34'22
SARUN	Bettiah	Bettiah	0'50	....	....	....	....	....	....	1	0'50	1'91	7'88	32'57
		Gopalgunge	1'21	....	....	....	....	....	....	1	1'21	2'95	6'35	27'66
	Sewan	Sewan	....	....	....	....	0'50	....	....	1	0'50	4'59	8'41	32'62
		Chuprah	0'15	....	....	....	....	....	....	—	—	6'91	34'51	—
SOUTH BEHAR	Shahabad	Buxar	....	....	....	....	0'56	....	....	1	0'56	6'47	6'14	33'67
		Dehree	....	....	....	....	....	....	....	—	Nil	4'72	6'50	26'70
	Gya	Bhuboobah	....	....	....	....	....	....	....	—	Nil	7'88	6'22	27'65
		Sassieram	....	....	....	....	....	....	....	—	1'32	4'06	6'82	36'72
Gya	Arrah	Arrah	....	....	0'84	....	....	0'38	....	2	Nil	4'86	6'82	29'40
		Aurungabad	....	....	....	....	....	....	....	—	—	—	—	35'41
	Patna	Gya	....	0'04	0'31	....	....	....	....	2	Nil	4'18	6'22	43'92
		Nowadah	0'13	....	0'29	....	....	....	....	2	0'42	3'74	6'13	32'31
Monghyr	Jehaunabad	Jehaunabad	....	....	....	....	....	....	....	—	Nil	5'30	3'92	40'69
		Patna	0'48	....	....	....	....	....	....	1	0'48	5'01	6'70	36'72
	Monghyr	Dinapore	0'10	....	....	....	0'05	....	....	2	0'15	2'65	6'69	29'45
		Behar	....	....	....	....	....	....	....	—	Nil	4'43	5'45	58'95
South Bhagulpore	Bardhupore	Barbh	....	....	....	....	....	....	....	—	Nil	4'01	7'08	38'40
		Banka	0'22	....	....	....	....	....	....	—	—	—	—	35'38
	Sonthal Per-gunnabs.	Rajmehal	....	....	2'23	....	0'15	....	0'33	1	0'33	3'87	12'09	26'79
		Goddha	....	....	....	....	....	....	....	2	2'38	8'39	9'24	34'89
Hazaribagh	Pakour	Pakour	....	....	....	....	....	....	....	—	Nil	6'49	10'88	45'39
		Nya Doonka	0'08	....	....	....	....	....	0'31	2	0'39	2'19	9'73	44'45
	Lohardugga	Deoghar	0'29	....	....	....	....	....	....	1	0'29	3'29	8'56	39'83
		Janjira	0'15	....	1'18	....	0'15	....	1'48	3	5'01	5'96	40'83	44'05
Singbhamo	Panchbassa	Pachamba	0'75	0'43	1'23	....	....	....	....	3	2'41	10'55	7'68	38'96</td

SUMMARY OF THE METEOROLOGICAL AND RAINFALL OBSERVATIONS TAKEN IN BENGAL FOR THE WEEK ENDING FRIDAY,
THE 28TH OF SEPTEMBER 1883.

DURING the week ending the 21st a well pronounced break in the rains had been established over the greater part of Orissa, South-West Bengal, and East Bengal, and towards the close of the week the break had gradually extended to Chutia Nagpur, South Behar, and the greater part of North Behar. Rain, however, still continued to fall, and in many cases in very large amounts in the hill districts of North Bengal and at the base of the hills. This break in the rains was the first of any importance which had occurred in the Lower Provinces during the present monsoon season, and it was accompanied by a high barometer over the whole reporting area, and with the establishment of light and rather irregular winds in all districts. Similar conditions continued to hold on the 22nd and 23rd, but on the 24th pressure commenced to diminish slightly over a considerable part of the Province, and the area of rainfall expanded, so that on this day, although rainfall was by no means general, local showers fell in most divisions, and in North Bengal rain was recorded at almost every station, and at several of them in excessive amounts. On the following day pressure commenced to recover itself slightly, but at the same time rain became more general in the southern, western, and eastern districts, while North Bengal and Behar became almost rainless. On the 26th pressure again increased slightly and became comparatively high in Behar and Chutia Nagpur, and the area of heavy rainfall was transferred to East Bengal, though local showers still continued to fall in all districts except in Behar. The same conditions held good on the 27th, except that rain was received in some districts in North Behar, and on the 28th instant pressure having become very uniform over the whole reporting area, there were very distinct indications of the rapid contraction of the area of rainfall. Rain was on this day entirely absent from Chutia Nagpur, North and South Behar, and from the greater part of South-West Bengal, and the showers, which were reported from the divisions of South-West Bengal and Orissa, appeared to be fewer in number and lighter in amount than on the previous day, though East and North Bengal were still receiving heavy rain. It will be thus seen that the area of heavy rainfall during the past week has moved from North Bengal to East Bengal. The rainfall for the week in most districts has also been characterised by great irregularity of distribution, and has consisted to a great extent of local showers of short duration, though in many cases heavy while they have lasted, and there are many instances where single stations in a district have received very heavy showers, while every other station has been quite free from rain on that day.

The monsoon current which has been blowing, or perhaps it would be more correct to say drifting, over Bengal during the past week has been generally of feeble character, and even more feeble than is usually the case at the end of September. Thus to take the stations at the head of the Bay, Saugor Island for the past week shows a daily wind velocity of 151 miles as against the normal daily velocity for September of 228 miles; again, Calcutta during the past week registered a daily wind velocity of 62 miles as against the normal velocity of 116.9 miles, while Jessor has registered a daily wind velocity of 51 miles during the week against the normal velocity of 79 miles. In Eastern Bengal, however, where, as has been previously pointed out, very heavy rain has been falling during a part of the week, the wind velocity has not been so much below the normal, and thus the daily wind movement at Chittagong has been 99 miles against the normal 108 miles. On the whole, however, at all stations, both on the sea coast and inland, wind velocities have been below the normal, and thus it is evident a feeble monsoon has been blowing during the past week.

Pressure, as has been stated previously, was at the commencement of the week distinctly above the normal. The changes during the week have not been large, but there has been a gradual increase of pressure, as is always the case at the end of September. The average pressure for the week is distinctly above the normal at most stations; the excess averaging about 0.03" in Orissa, Chutia Nagpur, and East Bengal, 0.02" in South-West Bengal, while a nearly normal pressure has on the whole obtained in Behar. The largest average excess is at Dacca, and is equal to 0.04", while a defect of 0.03" is reported from Durbhunga. The temperature variations during the week have been a little irregular, and have to a certain extent followed the variations in rainfall. Temperature has in most districts steadily increased during the week, but this is the normal course of things at the end of September, and on the average at most stations temperature does not vary much from the normal. The largest variation is an average excess of 3° at Patna, while Chittagong reports a defect of 1.5°. Taking the whole Province into consideration, temperature has been distinctly above the normal, though when the opposite variations are taken into account, the excess temperature for the Province will not be more than half a degree.

The following table gives the usual summary of the temperature and rainfall data for each of the seven meteorological divisions of the Province :—

METEOROLOGICAL DISTRICT.	TEMPERATURE						RAINFALL.									
	Highest observed during week.		Lowest observed during week.		Average for week.		Of week.			Rainy days.		Since 1st of month.		Since May 15th.		
	Of highest of each day.	Of lowest of each day.	Of mean for each day.	Of lowest of each day.	Average.	Normal average.	Variation.	Average number in week.	Normal average number.	Variation.	Average.	Normal average.	Average.	Normal average.	Average.	
Orissa	94.4	75.1	87.9	78.6	83.3	-0.1	0.85	2.16	-1.31	2.7	3.2	-0.5	8.32	10.03	52.94	45.12
South-West Bengal	93.6	74.2	90.0	77.9	84.0	+0.6	1.04	2.13	-1.09	2.1	3.2	-1.1	4.09	8.59	41.27	40.24
East Bengal	91.3	73.0	84.7	77.2	81.0	-1.12	3.86	3.10	+0.76	4.0	3.7	+0.3	8.17	11.86	60.42	70.46
North Bengal	93.6	72.1	87.5	75.9	81.7	-2.24	3.70	-0.46	3.6	3.7	-0.1	9.39	13.59	54.66	68.06	
North Behar	85.1	72.4	88.6	77.0	82.8	+0.2	0.44	2.01	-1.57	1.0	2.8	-1.8	4.97	7.15	36.73	38.98
South Behar	96.0	72.8	91.5	78.0	84.8	+2.0	0.70	3.01	-2.3	1.8	2.7	-0.9	4.37	9.47	41.08	45.58
Chutia Nagpur	89.5	67.7	86.4	71.5	79.0	+1.4	1.35	1.70	-0.35	2.1	3.1	-1.0	8.73	7.44	43.69	43.81

The past week has been one of light rainfall everywhere, except in Eastern Bengal, and this fact is clearly shown by the numbers given in the above table. The only meteorological district which has received its full normal quantity of rain is East Bengal. North Bengal appears to have received a sufficient supply, and is on the average only very slightly below the normal, while Chutia Nagpur has received at least four-fifths its normal fall for the week. In all other districts, however, the defect from the normal is serious, and in some instances only about one-fourth of the normal fall has been received. Taking the average of all the stations in each meteorological district, as shown in the above table, East Bengal has during the past week received a rainfall 25 per cent. in excess of the normal. On the other hand, North Bengal has recorded a fall 12 per cent. below the normal; Chutia Nagpur a fall 20 per cent. less than the normal; South-West Bengal and Orissa a fall between 50 and 60 per cent. below the normal; while the whole of Behar has been in defect to the extent of about 77 per cent. of its normal fall for the week. The number of rainy days in each district during the past week has varied also in an almost corresponding manner, and thus while in East Bengal there has been an excess number of rainy days, in all other districts the numbers have been smaller than usual. This has been particularly the case in South Behar, South-West Bengal and Chutia Nagpur. In some of the previous weeks of this month, however, Chutia Nagpur, Orissa, and North Bengal had been receiving rainfalls considerably in excess of the normal, so that it is the districts of South-West Bengal and North and South Behar which have received comparatively and actually the smallest amounts of rain during the month, and when on the average the rainfall for the month has not exceeded about 50 per cent. of the normal. Looking, however, at the rainfall during the present monsoon since May 15th, the variations from the normal fall are not very large, the greatest variations being in the case of East Bengal and North Bengal, which have received amounts only six-sevenths and four-fifths respectively of the normal falls. Taking the meteorological divisions more in detail, and considering the rainfall as received in the respective districts, in Orissa it would appear that at many of the stations in the Balasore district there has been an almost complete absence of rain during the past week, while in the Pooree and Cuttack districts rain has been rather more general. In South-West Bengal, the Burdwan and Jessor districts have actually received falls on the average in excess of the normal, the excess, however, being principally due to some heavy falls of rain at Culna, Cutwa, Narail, and Jessor. The case of the Burdwan district, it may be remembered, is rather remarkable, for Burdwan, Raneegunge, &c., have during the present monsoon been centres of exceptionally heavy rainfall, which has continued almost throughout the season. In this division also the Midnapore district has been at several stations almost rainless during the past week. In East Bengal, the Mymensingh and Dacca districts have received falls considerably below the normal, while the Chittagong and Noakhally districts have received almost twice their normal fall. In North Bengal the Julpigoree district still continues a centre of heavy rainfall, and is for the week largely in excess of the normal, while the Rajshahye district on the other hand has received less than 20 per cent. of the normal fall. Of the districts of North Behar, Saran is most in defect, and in South Behar the Gya and Patna districts are most in defect, and in fact have been practically rainless during the week. Finally, in Chutia Nagpur the rainfall in the districts has been rather more evenly distributed, though the Singbham and Manbham districts have reported at some stations comparatively heavy rain.

Saturday, 22nd September.—Pressure increased slowly at almost all reporting stations except in Behar, where a decrease was registered. The increase of pressure was largest in Orissa and in East Bengal. Pressure was considerably above the normal of the day, the excess ranging from '035" at Gya to '078" at Dacca. Temperature increased rapidly in South Behar, but in other divisions the changes were not marked. In all districts, except North Behar, temperature was considerably above the normal, the average excess

being nearly 2° . Light, and in several divisions variable, winds continued to blow over the whole Province. In North Behar the wind directions were particularly irregular, though in South Behar light south-east winds were still reported from the majority of stations. Wind velocities in most divisions were even smaller than on previous days. Humidity had decreased in South Behar. It was very large at some stations in North Bengal, but was moderate only in other divisions. The amount of cloud was very large at many stations in North Bengal, but in other districts was comparatively small. Orissa, South-West and East Bengal, South Behar and Chutia Nagpur were practically rainless. A few showers fell in North Behar, but the heaviest rain fell in North Bengal, at the stations in the hills and in the districts adjacent to the hills; the rainfall in North Bengal was confined to the districts of Rungpore, Cooch Behar and Darjeeling. The following stations reported amounts in excess of one inch:—Julpigoree, Dinhatta, Cooch Behar and Gopalgunge.

Sunday, 23rd September.—Pressure continued to increase in Orissa, South-West and East Bengal, but a fall had commenced in North Bengal and Behar. Pressure was still very considerably above the normal, the excess ranging from $0.08''$ at Dacca to $0.02''$ at Gya. Temperature steadily increased in all districts. It was considerably above the normal over the whole reporting area. The excess temperature averaged about 2° , but at Patna an excess of 3.2° was reported. Light irregular winds and calms prevailed in all districts. Wind velocities were perceptibly decreasing, and were very small. Humidity had decreased in most districts, while the amount of cloud was also smaller. Rain was again practically absent from all divisions except North Bengal, and from the stations in this division in the hills, and close to their base extremely heavy rain was reported. Thus Matabhangha received 6.77 inches, Julpigoree 4.85 inches, Buxa 4.50 inches, Cooch Behar 4.05 inches, and Mickligunge 2.38 inches.

Monday, 24th September.—The changes of pressure were a little variable. There was a slight, though distinct, decrease in South-West Bengal, in Orissa, and in East Bengal; a considerable increase at some of the stations in North Bengal; and a smaller increase in Behar and Chutia Nagpur. Pressure continued rather above the normal in all districts, the excess ranging from $0.01''$ at Dacca to $0.056''$ at Hazaribagh. Temperature again increased slightly at most stations, and was considerably above the normal. It was nearly 4° above the normal in Orissa and Chutia Nagpur, about 3° above it in South-West Bengal, and nearly 2° above it in most other districts. Winds continued light and irregular in all divisions, though in North Bengal wind velocities were rather larger than they had been for some days. Humidity had decidedly increased in North Bengal. In other districts the changes were not marked, and humidity was moderate only, while amount of cloud had also increased in North Bengal, while in other districts remained comparatively small. The area of rainfall to-day extended considerably, and was reported from almost every station in North Bengal, and in some cases in very large amounts; while from all other divisions a considerable number of local showers were reported, which showers were in many cases heavy. Rainfall was again particularly heavy in the Cooch Behar district, where Mickligunge reported 7.15 inches, Matabhangha 4.67 inches, and Cooch Behar 3.05 inches. In other districts the following stations received amounts in excess of two inches:—Godda, Bagdogra, Azimgunge, and Cutwa; and the following stations amounts in excess of one inch:—Cuttack, Culna, Meherpore, Jessore, Lalbagh, Fenny, Brahmanberiah, Sherpore, Nowkilla, Bogra, Maldah, Bhowanigunge and Hazaribagh.

Tuesday, 25th September.—Pressure had risen in all districts, except locally at one or two stations in North Bengal and at Hazaribagh. Some of the stations in South Behar and in Chutia Nagpur showed a comparatively low pressure, though the barometer at almost all stations was above the normal by amounts ranging from $0.05''$ at Durbhanga to about $0.01''$ at Saugor Island. Temperature had fallen in all districts, and at some stations rather rapidly. It was, however, still above the normal at all the reporting stations, except Chittagong, the average excess temperature being between 1° and 2° . Light irregular winds and calms prevailed in all districts. If anything, wind velocities had diminished slightly since the 24th instant. Humidity had decidedly increased in Orissa, South-West and East Bengal, but had decreased in Behar and Chutia Nagpur. The amount of cloud had become very small in Behar, but it had increased considerably in South-West Bengal, Orissa and East Bengal. Light rain fell at most stations in Orissa, South-West and East Bengal, and Chutia Nagpur, but North Bengal, North and South Behar were practically rainless. The heaviest rain fell in East Bengal, where the following stations reported amounts in excess of one inch:—Burrisal, Bhola, Noakholly, Goalundo, Chandpore and Brahmanberiah. In other districts also the following stations received amounts in excess of one inch:—Mohesreka, Culna, Ranaghat (2.28 inches) and Pachamba.

Wednesday, 26th September.—Pressure continued to increase at nearly all stations, the increase being largest in Chutia Nagpur and at some of the stations in North Bengal. Pressure was distinctly above the normal at most stations, the excess ranging from about $0.01''$ in South-West Bengal to $0.06''$ in North Behar. Temperature had fallen rather rapidly in most districts, except Behar and Chutia Nagpur. Temperature was below the average in Orissa, South-West and East Bengal, and above the average in Behar and Chutia Nagpur. Dacca reported a temperature 5° below the normal, and Patna a temperature equally above it. Patna to-day registered a maximum temperature of 96° . Winds were very irregular in South-West Bengal and Orissa. Easterly and south-easterly winds prevailed

in Behar and East Bengal, while north-easterly winds were reported from North Bengal. Wind velocities were very small, particularly in Orissa, South-West Bengal and Behar, but in North Bengal winds had slightly increased in force since the 25th instant. Humidity continued high in most districts except South Behar. The amount of cloud was also large, except in North and South Behar. Very general and heavy rain fell in East Bengal, local showers also were reported from Orissa, South-West Bengal, North Bengal and Chutia Nagpur, but North and South Behar received very little rain except in the Purneah district. In East Bengal the following heavy rainfalls were reported:—Netrokona 3·41 inches, Noakhally 3·35 inches, Chandpore 3·10 inches, Mymensingh 2·75 inches, Jamalpore 2·50 inches, Comilla 1·84 inches, Bhola 1·75 inches, and Patuakhally 1·10 inches. In other divisions also the following heavy falls were reported:—Chandbali 1·07 inches, Narail 1·32 inches, Dinagepore 3·75 inches, Siliguri 1·51 inches, Darjeeling 1·40 inches, Arrareah 1·68 inches, Jamtara 1·18 inches, and Purulia 2·05 inches.

Thursday, 27th September.—Pressure diminished rather rapidly in North Bengal, and somewhat less rapidly in the remaining districts. The changes had the effect of reducing pressure below the normal of the day at almost all stations. Pressure was very slightly below the normal in Orissa and at the southern stations generally, while it was '05" below the normal at Gya. Temperature continued to fall in almost all districts, and was distinctly below the normal at all stations, except Patna. The average defect was about 2°, but at the stations in East Bengal it was nearly double this amount. Winds continued light and somewhat irregular in most divisions. Humidity was rather high in all divisions, except Chutia Nagpur and South Behar. The proportion of cloud was excessive in Chutia Nagpur, South-West and East Bengal; moderate in Orissa, North Bengal, and North Behar, and comparatively small in South Behar.

South Behar was practically rainless, while a few showers, light to moderate in amount, fell in Orissa, North Bengal, North Behar, and Chutia Nagpur. Rain was more general in East Bengal and in South-West Bengal, particularly in the eastern districts. The rainfall was extremely heavy at many stations in Eastern Bengal, and Fenny reported 4·78 inches, Brahmunderia 3·76 inches, Comilla 2·92 inches, Noakhally 2·45 inches, and Naraingunge 2·24 inches. The following stations in this and other districts reported amounts in excess of one inch:—Netrokona, Chandpore, Dacca, Munshigunge, Burrisal, Bhola, Agartola, Chittagong, Jessor, Narail, Bagirhat, Madhubani, Sitamarhi, and Chyebassa.

Friday, 28th September.—Pressure began to increase by small amounts at almost all stations, the rise being largest at some stations in East Bengal. Pressure did not vary much from the normal, except at one or two stations, such as Chittagong and Gya. Temperature had fallen rapidly at some of the stations in East Bengal, but in other districts there was not much change. Temperature was generally below the normal, especially in East Bengal, Dacca reporting a temperature nearly 6° and Chittagong nearly 4° below the normal. Winds had not changed much in direction since the 27th, but wind velocities had generally increased slightly. Humidity was high in all divisions, except Chutia Nagpur and South Behar. The amount of cloud was excessive in South-West and East Bengal, moderate in Orissa and North Bengal, and rather small in Behar and Chutia Nagpur.

Rain was almost entirely absent from Chutia Nagpur, North and South Behar and the western districts of South-West Bengal, but it was fairly general in North Bengal, East Bengal, Orissa, and the eastern districts of South-West Bengal. At many stations, particularly in North and East Bengal, the showers were heavy, and the following were the largest amounts reported:—Chittagong 4·99 inches, Satkhira 3·02 inches, Lalgola 2·41 inches, Noakhally 2·22 inches; while the following stations reported between one and two inches:—Jajpore, Saugor Island, Cox's Bazar, Rungamati, Burrisal, Madaripore, Chandpore, Pubna, Sherpore, and Panchbibi.

METEOROLOGICAL OFFICE, BENGAL,

The 2nd October 1883.

ALEXANDER PEDLER, F.C.S.,

Offg. Meteorological Reporter to the Govt. of Bengal.

MEMORANDA.

THE subjoined table, exhibiting the vital statistics of the first class Municipalities in Bengal for the week ending 15th September 1883, discloses the following results:—

(1.) That the birth rate in these Municipalities amounted to 23.3 per 1,000 of population against 22.1 per 1,000 during the preceding week ending 8th September, and the death-rate to 25.4 against 28.1 per 1,000.

(2.) That the following towns furnished the highest proportions of births and deaths:—

	<i>Births.</i>		<i>Deaths.</i>	
		Ratio per mille.		Ratio per mille.
Uterpara	..	66.1	Gya	.. 56.0
Mozufferpore	..	42.6	Jessore	.. 55.1
Gya	..	39.6	Bhagulpore	.. 52.5
Arrah	..	37.1	Serampore	.. 33.4
Bhagulpore	..	37.1	Chittagong	.. 30.5
Chuprah	..	34.2	Patna	.. 30.2
Serampore	..	29.4	Burdwan	.. 29.0
			Uterpara	.. 28.3
			Santipore	.. 28.0
			Poori	.. 27.8

(3.) That the death-rates from the diseases specified in the table referred to, as compared with similar information for the preceding week, were—

	Ratio per mille during the weeks ending—	
	15th September.	8th September.
Cholera	..	2.1
Small-pox	..	1.1
Fever	..	12.4
Bowel-complaints	..	3.6
Injury	..	5.5
Other causes	..	6.7
		6.9

indicating an increase of mortality from cholera and small-pox, and a decrease of the casualty-rate from all the other death-causes, except injury, the fatal result from which exhibits no variation.

(4.) That the above-named diseases proved most fatal in the following Municipalities:—

<i>Cholera.</i>	<i>Small-pox.</i>	<i>Fever.</i>
Ratio per mille.	Ratio per mille.	Ratio per mille.
Bhagulpore	18.1	Hughli
Uterpara	9.4	.. 1.4
Serampore	5.9	Jessore
Gya	4.8	Gya
Burdwan	4.6	Chittagong
		Santipore

<i>Bowel-complaints.</i>	<i>Injury.</i>	<i>Other Causes.</i>
Ratio per mille.	Ratio per mille.	Ratio per mille.
Uterpara	9.4	Uterpara
Monghyr	9.0	.. 9.4
Bhagulpore	8.1	Poori
		Gya
		Patna

(5.) That the mortality according to *Sex*, *Class* and *Age* stands as follows:—

	<i>According to Sex.</i>	<i>According to Class.</i>	<i>According to Age.</i>
	Ratio per mille.	Ratio per mille.	Ratio per mille.
Males	25.9	Christians	Under 1 year
Females	24.9	Hindus	1 and under 5 years
		Mahomedans	5 and under 10
			10 and under 15
			15 and under 20
			20 and under 30
			30 and under 40
			40 and under 50
			50 and under 60
			60 years and upwards

F. W. A. DEFAECK,

The 1st October 1883. *Officializing Sanitary Commissioner for Bengal.*

DISTRICTS.	POPULATION.	BIRTHS.		DEATHS FROM—		COMPARISON WITH PREVIOUS PERIODS.		DEATHS.		SEX.	
		NUMBER.	Ratio per 1,000 of population per annum.	Total.	Males.	Females.	Males.	Females.	Males.	Females.	Ratio per 1,000 of population per annum.
MORTALITY ACCORDING TO—											
Burdwan	16,917	34,080	107	152	259	70	3	10	2	4	374
Midnapur	16,927	33,560	5	62	46	108	133	10	3	15	374
Hutki and Chinsurah	19,179	19,718	12	6	18	161	81	242	200	1	31
Serampore	13,559	19,937	26,496	8	7	15	157	137	294	114	3
Uttarpur	3,046	2,464	5,510	2	5	7	189	472	661	40	1
Hovrah	69,989	44,639	105,628	25	18	43	123	89	212	188	5
Suburbs of Calcutta	147,205	104,924	231,480	53	33	86	110	68	178	130	7
Kalimpong	19,413	22,169	41,532	3	6	9	38	75	113	50	1
Nuddea	4,028	4,655	8,683	1	1	2	60	60	120	100	1
Santipore	11,559	19,542	24,131	6	2	8	149	43	172	300	11
Jeypore	4,889	3,605	8,406	...	...	...	...	...	...	9	...
Rajshahi	10,766	9,625	19,791	5	...	5	131	131	227	130	...
Darjiling	4,579	2,429	7,018	...	2	2	148	148	148	150	...
Dacca	42,782	37,379	80,161	15	20	35	97	130	227	75	12
Naxranganj	7,695	4,956	12,561	5	...	5	207	207	No female births, 300	No female births, 300	...
Chittagong	13,540	8,750	22,120	3	1	4	70	23	94	11	...
Tipperah	8,133	5,333	13,506	3	2	6	116	77	193	150	...
Patna	78,792	81,475	160,257	48	32	80	156	104	260	150	2
Gya	38,220	37,631	76,181	35	23	53	259	157	596	152	7
Shahabad	20,960	22,505	45,465	17	14	31	203	168	371	121	...
Mozaffarpore	23,054	19,058	42,742	18	17	35	219	207	426	105	...
Durhangan	33,774	32,322	66,096	10	13	23	79	102	181	76	...
Serun	20,044	27,295	53,240	19	16	35	186	156	342	118	1
Bhagulpore	29,640	27,813	57,453	23	18	41	208	163	371	127	20
Monghyr	28,154	29,306	57,525	8	10	18	72	90	163	80	2
Purneah	8,463	6,653	15,016	...	...	...	...	...	...	5	...
Poorei	13,027	11,205	24,323	4	2	6	88	43	129	290	1
Total	706,353	623,459	1,329,080	324	261	595	151	102	233	127	53

DISTRICTS.	NAMES OF MUNICIPALITIES.	DEATHS AMONG—	Ratio per 1,000 of Population for Annum.													
			Christians.	Buddhists.	Hindus.	Brahmindeans.	Other classes.	Buddhists.	Hindus.	Brahmindeans.	Christians.	Buddhists.	Other classes.	60 and upwards.		
MORTALITY ACCORDING TO—																
Age.																
			DEATHS.													
Burdwan	...	Burdwan	16	4	...	32'9	20'3	...	5	1	3	1	3	...		
Midnapur	...	Midnapur	11	4	...	22'1	22'8	...	1	4	1	3	2	...		
Hughli	...	Hughli and Chinsurah	12	1	...	19'7	7'6	...	5	1	2	1	1	27'5		
Shantipore	...	Shantipore	17	...	...	35'0	...	3	1	3	1	4	1	17'2
Uttarpara	...	Uttarpara	3	...	...	29'3	...	...	...	...	...	2	...	21'9
Howrah	...	Howrah	23	9	...	14'7	21'4	...	6	2	2	7	4	14'1		
24-Pergunnahs	...	Suburbs of Calcutta	1	64	44	12'8	22'2	23'7	...	26	6	1	8	12		
Kishnagar	...	Kishnagar	5	6	...	14'5	30'0	...	1	...	3	1	1	10'3		
Raughat	...	Raughat	1	1	...	71	35'1	...	...	1	...	1	...	23'1
Santipore	...	Santipore	7	6	...	21'2	45'1	...	9	2	...	1	1	15'7		
Jessore	...	Jessore	5	4	...	57'6	54'4	...	...	3	1	1	2	11'6
Rai Bahadurh	...	Rai Bahadurh	1	8	...	5'2	16'9	...	2	...	1	1	1	10'9		
Darjiling	...	Darjiling	...	...	...	...	...	...	...	...	...	...	...	...
Dacca	...	Dacca	1	18	9	10'5	23'2	11'9	...	5	2	1	5	7'1		
Chittagong	...	Chittagong	1	3	9	65'3	39'6	...	2	1	1	1	3	13'7		
Tipperah	...	Comilla	2	...	...	17'5	14'1	...	1	2	1	1	5	10'3
Patna	...	Patna City	74	19	...	32'3	24'2	...	19	16	11	4	5	23'8		
Gya	...	Gya	68	14	...	58'9	45'3	...	22	25	5	1	4	6		
Shahabad	...	Arain	13	11	...	19'0	47'6	...	6	3	...	2	1	1		
Meaupore	...	Meaupore	12	1	...	20'8	4'2	...	1	4	...	1	2	54'5		
Durhanga	...	Durhanga	13	7	...	14'0	20'7	...	7	2	...	1	1	13'7		
Sarun	...	Chuprah	15	11	...	33'2	8'4	...	6	3	...	2	1	4		
Bhagulpore	...	Bhagulpore	1	40	17	18'7	52'3	51'2	...	11	9	6	3	4		
Monghyr	...	Monghyr	19	8	...	23'1	33'1	...	3	1	2	2	5	16'7		
Purnash	...	Purnash	5	1	...	28'3	9'2	...	...	1	1	1	1	...
Poorei	...	Poorei	13	...	...	23'1	...	...	5	...	6	...	2	88'4
		TOTAL	4	464	183	189	24'2	...	138	86	41	33	36	80	53	
														41'6	53'1	
														15'3	16'7	
														14'9	15'8	
														16'8	16'7	

F. W. A. DEABECK,

DISTRICTS.	NAMES OF MUNICIPALITIES.	DEATHS AMONG—	RATIO PER 1,000 OF POPULATION PER ANNUM.										DEATHS.	MORTALITY ACCORDING TO—															
			Christians.	Hindus.	Buddhists.	Mahomedans.	Other classes.	Christians.	Hindus.	Buddhists.	Mahomedans.	Other classes.																	
Burdwan	...	Burdwan	...	16	4	...	329	293	...	3	1	3	393	9	197	49.9	207	44.6	33.3	75.3	31.2	...							
Midnapur	...	Midnapur	...	11	6	...	221	293	...	1	4	1	...	3	2	...	165	283	94	74	...	75.6	56.3						
Hughli	...	Hughli and Chinsurah	...	12	1	...	197	76	...	5	1	2	1	1	1	1	275	19.5	29.9	17.2	17.5	15.9	20.7						
Serampore	...	Serampore	...	17	...	...	350	...	...	3	1	1	4	1	...	3	2197	28.8	20.7	70.3	23.8	38.6	10.5				
Ularpata	...	Ularpata	...	3	...	...	293	...	...	1	...	...	...	...	2	...	1935	...	...	...	...	...	40.0				
Howrah	...	Howrah	...	23	9	...	147	214	...	6	...	2	...	7	4	4	1887	...	14.1	13.4	14.0	9.4	11.4	31.8					
24-Pergunnah	...	Suburbs of Calcutta	...	64	44	...	128	227	...	26	6	1	4	8	12	19	11	7	15	283	19.3	2.6	10.7	19.2	167.8	21.5			
Nudde	...	Raniganj	...	9	5	...	145	30.0	...	1	...	3	2	1	1	1	3	2	74.0	...	34.4	27.4	15.3	7.3	9.2	42.0			
Jessore	...	Santipore	...	1	1	...	71	35.1	...	...	1	...	1	...	1	...	...	...	...	46.6	...	34.5	...	...	...	...	...
Rajshahi	...	Jessore	...	7	6	...	212	45.1	...	9	2	...	1	4	1	...	3	188.4	41.0	...	34.8	31.0	14.2	...	...	10.9	
Darjiling	...	Rampore Beasleah	...	5	4	...	576	54.4	...	...	3	1	...	2	1	1	1	...	...	50.0	...	15.4	21.4	...	...	...	...
Dacca	...	Darjiling	...	1	3	...	52	15.9	...	...	2	...	...	2	...	1	1	...	...	...	...	...	...	...	...	...
Narangail	...	Narangail	...	18	9	...	1095	23.2	11.9	...	5	2	1	1	1	5	4	...	6	137.0	14.1	10.5	6.5	7.1	17.8	12.4			
Chittagong	...	Chittagong	...	1	1	...	1095	65.3	26.9	39.6	...	2	1	1	1	1	3	184.7	26.4	...	...	...	...	...	...	...
Tipperah	...	Comilla	...	2	2	...	175	14.1	...	1	2	1	...	...	...	...	...	...	175.1	79.5	36.9	...	...	...	...	...	...
Patna	...	Patna City	...	74	19	...	323	24.2	...	19	16	11	4	5	12	5	8	5	8	239.2	57.0	34.0	13.4	23.3	21.7	11.2	22.1	30.1	
Gya	...	Gya	...	68	14	...	589	45.3	...	22	25	6	1	4	2	4	6	13	639.1	204.6	37.2	9.9	14.1	8.2	21.3	47.6	131.3		
Shibabad	...	Arikh	...	13	9	...	190	47.6	...	6	3	...	2	1	1	1	1	2	242.2	25.2	13.2	...	11.1	16.8	36.1	
Monufiapore	...	Monufiapore	...	13	1	...	208	42.3	...	1	4	2	...	4	2	54.5	61.5	...	9.4	12.9	3.9	9.3	12.1	64.0	42.7
Durhanga	...	Durhanga	...	13	7	...	140	20.7	...	7	2	...	1	1	2	3	...	3	235.8	13.7	...	9.4	12.9	16.6	16.4	48.8	
Sarun	...	Chuprah	...	16	11	...	32.2	8.4	...	6	1	2	1	3	2	1	1	216.1	55.7	8.4	20.2	...	...	...	...	...	59.8
Blasulpore	...	Blasulpore	...	1	40	17	1387	52.3	51.9	...	11	9	6	7	1	10	8	6	2	4	479.1	86.3	44.3	12.4	47.6	16.8	24.6	57.7	...
Monghyr	...	Monghyr	...	19	8	...	221	33.1	...	3	9	1	2	2	5	4	6	105.1	16.7	7.4	18.1	...	101	291	32.6	26.9	87.0		
Purneah	...	Purneah	...	6	1	...	283	9.2	...	1	1	1	1	1	1	1	1	...	43.0	82.9	62.5	...	15.8	18.2	28.0	
Poorei	...	Poorei	...	13	287	5	6	2	881.6	171.7	47.1	...	47.1	
Total	...	Total	...	464	183	...	189	26.1	24.2	...	138	85	41	33	36	80	56	53	43	83	237.3	41.6	14.9	18.8	12.6	10.7	23.2	53.1	...

Results of the Meteorological Observations taken at the Alipore Observatory from 23rd to 29th September 1883.

Month.	Date.	Maximum in sun.	Number of hours of bright sunshine.	Mean pressure barometer at 32° Fahr.	TEMPERATURE.				HYGROMETRY.				WIND.		Rain.	WEATHER.
					Mean	Maximum.	Range.	Minimum.	Mean wet bulb.	Vapour tension.	Dew point	Humidity.	Prevailing direction.	Miles recorded		
1883.		⊖		Inches.	⊖	⊖	⊖	⊖	⊖	Inches	⊖	%			Inches	
Sept.	23rd	153°4	9°0	29 738	85°0	90°8	11°4	79°2	80°7	0.992	79°0	83	SSW and SW by W	70	Nil.	Partially cloudy.
"	24th	156°0	7°2	729	84°6	90°7	11°3	79°4	80°4	0.985	78°8	83	SW by W, and WSW	40	"	Chiefly cloudy, o, t, lr.
"	25th	133°0	Nil	734	82°1	88°0	9°8	78°2	78°8	0.941	77°4	86	WNW, E by S, and variable.	48	0°01	Cloudy, o, g, d, t.
"	26th	149°4	2°4	741	81°7	87°6	10°7	76°9	78°2	0.922	76°8	85	E by S, and ENE ...	44	Nil.	Chiefly cloudy, o.
"	27th	143°7	0°8	744	81°0	85°6	8°6	77°0	77°7	0.908	76°3	86	SW, W by S, and SE by E.	92	0°12	Chiefly cloudy, o, g, p.
"	28th	120°5	Nil	777	80°2	84°0	6°3	77°7	77°9	0.927	76°9	90	SE by E, and SSE ...	57	0°02	Chiefly cloudy, o, g, d.
"	29th	150°2	3°5	812	80°7	86°7	9°5	77°2	78°1	0.930	77°0	80	SSE, W and variable	42	3°07	Chiefly cloudy o, g, p, t, d, <.

The mean pressure of the seven days	... Inches.	29.754
The average pressure of the corresponding period for 24 years, S. G.'s Office	... Inches.	29.733
The total number of hours of bright sunshine of the seven days	... Hours.	22.9
The mean temperature of the seven days	... °F.	82.2
The average temperature of the corresponding period for 24 years, S. G.'s Office	... °F.	83.1
The extreme variation of temperature during the seven days	... °F.	13.8
The maximum temperature during the seven days	... °F.	90.7
The highest velocity of the wind in one hour during the seven days	... Miles.	9
The highest pressure of the wind on one square foot during the seven days	... lbs.	Not measurable.
The mean relative humidity during the seven days	... %	86
The average relative humidity of the corresponding period for 24 years, S. G.'s Office	... %	85
The total fall of rain from 23rd to 29th September 1883	... Inches.	3.22
The average fall of the corresponding period for 24 years, S. G.'s Office	... Inches.	1.71
The total fall from 1st January to 29th September 1883	... Inches.	49.29
The average fall of the corresponding period for 24 years, S. G.'s Office	... Inches.	58.47

The mean pressure, temperature, &c., are deduced from the traces of the Barograph and Thermograph, and from observations made at 6h, 10h, 16h, and 22h.

The maximum and minimum temperatures are obtained from self-registering thermometers. All the thermometers are verified and the readings have been corrected to a standard constructed and verified at the Kew Observatory. They are exposed under a thatched shed open at the sides, and are suspended four feet above the ground.

The barometer readings are corrected approximately to those of the standard Newman's No 86 formerly at the Surveyor-General's Office.

The hygrometric elements are obtained from Tables III, IV and V of the official tables computed in the Meteorological office, and based on Regnault's modifications of August's formula.

The direction of the movement of the wind are taken from the trace of a Beckley's anemograph.

The mouth of the rain-gauge is one foot above the ground.

o overcast, t thunder, lr lightning reflection, d drizzling rain, g gloomy, p passing temporary showers, < lightning.

ALEXANDER PEDLER,

METEOROLOGICAL OFFICE, INDIA,
The 1st October 1883.

For Meteorological Reporter to the Government of India.

Results of the Thermometrical Observations taken at the Meteorological Office,
Chowringhee, from 23rd to 29th September 1883.

MONTH.	Date.	TEMPERATURE.				HYGROMETRY.				Rain.
		Mean.	Maximum.	Range.	Minimum.	Mean wet bulb.	Vapour tension.	Dew point.	Humidity.	
1883.		°	°	°	°	°	Inches.	°	%	Inches.
September	23rd	84.8	92.5	12.7	79.8	80.5	.984	78.8	82	Nil
"	24th	85.4	91.5	10.7	80.8	81.1	1.019	79.8	82	
"	25th	81.5	89.0	10.2	78.8	79.2	.969	78.3	90	0.01
"	26th	81.4	88.8	11.0	77.8	78.4	.933	77.2	87	Nil
"	27th	81.5	87.3	9.5	77.8	79.1	.963	78.1	89	0.12
"	28th	80.2	86.1	8.1	78.0	78.2	.939	77.3	91	Nil
"	29th	80.8	86.8	9.0	77.8	78.7	.954	77.8	91	1.87

The mean temperature of the seven days 82.2

The extreme variation of temperature during the seven days 14.7

The maximum temperature during the seven days 92.5

The mean relative humidity during the seven days 87

The total fall of rain from 23rd to 29th September 1883 2.00

The mean temperature and humidity are obtained by applying to the mean of the 10h, 16h, and minimum readings a correction dependent on the range, and derived from the hourly observations at the Surveyor-General's Office, Chowringhee, in past years.

METEORLOGICAL OFFICE, INDIA,

The 1st October 1883.

ALEXANDER PEDLER,

For Meteorological Reporter to the Govt. of India.

Weekly Return of Traffic Receipts on Indian Railways.

EAST INDIAN RAILWAY.

Approximate Return of Traffic for week ended 22nd September 1883, on 1,509 miles open.

	COACHING TRAFFIC.		MERCANDISE AND MINERAL TRAFFIC.		Other earnings (estimated.)	Total earnings.	TOTAL TRAIN-MILES RUN.		
	Number of Passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchan- dise.	Total.
Total traffic for the week... ...	189,788	Rs. 1,97,674 3 0	Mds. s.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
per mile of railway ...	130 15 11	.....	23,22,374 10	6,02,977 2 4	17,29 14 2	8,17,946 3 6	60,590	123,408	184,007
For previous 11 weeks of half- year	2,125,214	Rs. 21,79,744 12 0	2,59,22,275 0	72,03,055 0 5	1,91,778 5 3	95,74,578 1 8	676,830 $\frac{1}{2}$	1,524,076 $\frac{1}{2}$	2,200,906 $\frac{1}{2}$
Total for 12 weeks ...	2,315,002	Rs. 23,77,418 15 0	2,82,44,649 10	78,06,032 2 9	2,09,073 3 5	1,03,92,524 5 2	737,429 $\frac{1}{2}$	1,647,484 $\frac{1}{2}$	2,384,913 $\frac{1}{2}$
COMPARISON.									
Total for corresponding week of previous year	205,072 $\frac{1}{2}$	Rs. 2,16,153 1 9	20,12,139 30	4,77,916 3 9	20,112 2 5	7,14,181 7 11	51,443	98,392	149,835
Per mile of railway correspond- ing week of previous year ...	.....	143 7 4	.....	317 2 11	13 5 7	473 15 10	.....	.....	.....
Total to corresponding date of previous year	2,080,810 $\frac{1}{2}$	Rs. 24,59,040 1 9	2,54,88,261 30	63,77,086 0 0	2,37,221 5 9	90,73,347 7 6	655,785	1,321,901	1,977,686

Approximate statement of gross receipts of the East Indian Railway.

RECEIPTS FOR WEEK ENDED 23RD SEPTEMBER 1882.			RECEIPTS FOR WEEK ENDED 22ND SEPTEMBER 1883.			TOTAL RECEIPTS FROM 1ST APRIL 1882 TO 23RD SEPTEMBER 1882.			TOTAL RECEIPTS FROM 1ST APRIL 1883 TO 22ND SEPTEMBER 1883.				
Mean mile worked.	Receipts.	Per mile work- ed.	Mean mile worked.	Receipts.	Per mile work- ed.	Mean mile worked.	Total receipts.	Per mile work- ed.	Mean mile worked.	Total receipts.	Per mile work- ed.	Total increase in 1883.	Total decrease in 1883.
1,500 $\frac{1}{2}$	Rs. 7,14,181	Rs. 474	1,500	Rs. 8,17,946	Rs. 542	1,500 $\frac{1}{2}$	Rs. 2,06,65,412	Rs. 13,715	1,509	Rs. 2,44,60,920	Rs. 16,210	Rs. 37,95,508	.....

EASTERN BENGAL RAILWAY COMPANY.

Approximate Return of Traffic for week ended 15th September 1883, on 206 $\frac{1}{4}$ miles open.

	COACHING TRAFFIC.		MERCANDISE AND MINERAL TRAFFIC.		Other earnings (estimated.)	Total earnings.	TOTAL TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchan- dise.	Total.
Total traffic for the week... ...	45,933	Rs. 27,704 0 0	Mds. s.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
Or per mile of railway ...	222	134 0 0	2,71,394 0	75,183 0 0	2,933 0 0	1,05,820 0 0	7,785	8,353 $\frac{1}{2}$	16,138 $\frac{1}{2}$
For previous 10 weeks of half- year	514,190	Rs. 2,77,346 0 0	1,312 27	363 10 3	14 3 0	511 13 3	.....	.....	.....
Total for 11 weeks ...	560,123	Rs. 3,05,050 0 0	21,34,723 0	4,50,764 0 0	5,365 0 0	7,33,475 0 0	78,323 $\frac{1}{2}$	65,622	143,945 $\frac{1}{2}$
COMPARISON.									
Total for corresponding week of previous year	35,439	Rs. 22,997 0 0	4,77,201 0	1,45,187 0 0	1,743 0 0	1,69,927 0 0	5,957	13,608 $\frac{1}{2}$	19,655 $\frac{1}{2}$
Per mile of railway correspond- ing week of previous year ...	206	Rs. 133 14 4	2,778 19	845 5 5	10 2 5	989 6 2	.....	.....	.....
Total to corresponding date of previous year	464,071	Rs. 2,67,020 0 0	36,50,475 0	10,52,179 0 0	8,455 0 0	13,27,654 0 0	66,457 $\frac{1}{2}$	118,831 $\frac{1}{2}$	195,283 $\frac{1}{2}$

Includes Rs. 106 on account of Revenue stores.

EASTERN BENGAL RAILWAY COMPANY.

Miles open. Total.

Bengal Central Railway Approximate Return of Traffic for week ended 15th September 1883. { Ranaghat Section 20 $\frac{1}{2}$ } 35 { Dum-Dum " 14 $\frac{1}{2}$ }

	COACHING TRAFFIC.		MERCANDISE AND MINERAL TRAFFIC.		Other earnings (estimated.)	Total earnings.	TOTAL TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchan- dise.	Total.
Total traffic for the week—									
Ranaghat Section	2,266	Rs. 654 0 0	6,320 0	213 0 0	6 0 0	873 0 0	353	228	551
Dum-Dum " do. ...	5,730	733 0 0	824 0	18 0 0	12 0 0	763 0 0	607 $\frac{1}{2}$	10 $\frac{1}{2}$	629
Or per mile of railway—									
Ranaghat Section	109	Rs. 31 8 3	304 23	10 4 3	0 4 8	42 1 2	.....	.....	.....
Dum-Dum " do. ...	402	51 7 0	57 33	1 4 3	0 13 5	53 8 8	.....	.....	.....
For previous 10 weeks of half-year—									
Ranaghat Section	24,258	Rs. 6,814 0 0	1,29,293 0	2,543 0 0	68 0 0	9,425 0 0	2,869 $\frac{1}{2}$	2,940 $\frac{1}{2}$	5,810
Dum-Dum " do. ...	65,349	7,839 0 0	24,791 0	176 0 0	100 0 0	8,115 0 0	5,973 $\frac{1}{2}$	225 $\frac{1}{2}$	6,309
Total for 11 weeks—									
Ranaghat Section	25,624	Rs. 7,468 0 0	1,35,613 0	2,756 0 0	74 0 0	10,293 0 0	3,22 $\frac{1}{2}$	3,168 $\frac{1}{2}$	6,301
Dum-Dum " do. ...	71,070	8,572 0 0	25,615 0	194 0 0	112 0 0	8,878 0 0	6,651 $\frac{1}{2}$	314 $\frac{1}{2}$	6,809
Total of both Sections ...	97,594	Rs. 16,040 0 0	1,61,228 0	2,950 0 0	186 0 0	19,176 0 0	9,804 $\frac{1}{2}$	3,482 $\frac{1}{2}$	13,287

PATNA AND GYA STATE RAILWAY.

Approximate Return of Traffic for week ended 8th September 1883, on 57½ miles open.

	COACHING TRAFFIC.		MERCHANTISH AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight Carried.	Receipts.			Coaching.	Merchandise.	Total.
Total traffic for the week ...		Rs. A. P.	Mds. s.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Or per mile of railway ...	8,684	3,885 2 0	19,336 20	1,793 8 0	54 4 0	5,732 14 0	1,904 ½	489 ½	2,204
For previous 9 weeks of half-year ...	152	67 14 9	338 10	31 5 8	0 15 2	100 3 7	.....	.....	.....
Total for 10 weeks ...	72,774	34,264 9 0	2,02,821 10	15,163 13 0	527 6 0	49,955 12 0	16,020	5,517	21,543
COMPARISON.									
Total for corresponding week of previous year ...	*8,888 ½	†4,967 1 6	*18,340 0	†2,131 13 0	.....	†7,098 14 6	*1,653	*1,479	*3,132
Per mile of railway corresponding week of previous year ...	156	87 2 3	322 0	37 6 5	.....	124 8 8	.....	.....	.....
Total to corresponding date of previous year ...	86,163	43,146 6 0	2,32,471 0	24,679 12 0	875 15 2	68,701 15 2	15,534	15,348 ½	30,882 ½

* Represents approximate figures, as audited figures are not obtainable.

† Represents audited figures of the corresponding week of previous year.

Approximate statement of gross receipts of Patna and Gya State Railway.

RECEIPTS FOR WEEK ENDING 9TH SEPTEMBER 1882.			RECEIPTS FOR WEEK ENDING 8TH SEPTEMBER 1883.			TOTAL RECEIPTS FROM 1ST APRIL 1882 TO 9TH SEPTEMBER 1882.			TOTAL RECEIPTS FROM 1ST APRIL 1883 TO 8TH SEPTEMBER 1883.			Total increase in 1883.	Total decrease in 1883.
Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked.		
57	Rs. 7,699	Rs. 125	57 ½	Rs. 5,733	Rs. 100	57	Rs. 1,96,783	Rs. 3,452	57 ½	Rs. 1,74,828	Rs. 3,056	.....	Rs. 21,955

PATNA AND GYA STATE RAILWAY.

Approximate Return of Traffic for week ended 15th September 1883, on 57½ miles open.

	COACHING TRAFFIC.		MERCHANTISH AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
Total traffic for the week ...		Rs. A. P.	Mds. s.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Or per mile of railway ...	17,519	8,198 12 0	24,516 10	2,029 11 0	51 14 0	10,280 5 0	2,230	506	2,736
For previous 10 weeks of half-year ...	306	143 5 4	428 30	35 7 9	0 14 6	179 11 7	.....	.....	.....
Total for 11 weeks ...	81,458	38,149 11 0	2,32,157 30	16,957 5 0	581 10 0	55,688 10 0	17,933 ½	6,006 ½	23,940
COMPARISON.									
Total for corresponding week of previous year ...	*10,052 ½	†4,876 5 6	* 19,955 10	† 2,118 2 0	† 76 15 3	† 7,071 6 9	* 1,552	* 1,350	* 2,204
Per mile of railway corresponding week of previous year ...	176	85 8 10	350 0	37 2 7	1 5 7	124 1 0	.....	.....	.....
Total to corresponding date of previous year ...	96,744	48,022 11 6	2,54,662 20	26,797 14 0	952 12 5	75,773 5 11	17,086	16,698 ½	33,784 ½

* Represents approximate figures, as audited figures are not obtainable.

† Represents audited figures of the corresponding week of previous year.

Approximate Statement of gross receipts of the Patna and Gya State Railway.

RECEIPTS FOR WEEK ENDED 16TH SEPTEMBER 1882.			RECEIPTS FOR WEEK ENDED 15TH SEPTEMBER 1883.			TOTAL RECEIPTS FROM 1ST APRIL 1882 TO 16TH SEPTEMBER 1882.			TOTAL RECEIPTS FROM 1ST APRIL 1883 TO 15TH SEPTEMBER 1883.			Total increase in 1883.	Total decrease in 1883.
Mean mile worked.	Receipts.	Per mile worked.	Mean mile worked.	Receipts.	Per mile worked.	Mean mile worked.	Total receipts.	Per mile worked.	Mean mile worked.	Total receipts.	Per mile worked.		
57	Rs. 7,671	Rs. 124	57 ½	Rs. 10,280	Rs. 180	57	Rs. 2,03,854	Rs. 3,576	57 ½	Rs. 1,85,108	Rs. 3,236	.....	Rs. 18,740

BENGAL PROVINCIAL RAILWAYS.

Weekly Statement of Traffic Receipts.

Latest return received.	Name of Railway.	Length open.	RECEIPTS FOR WEEK ENDING		TOTAL RECEIPTS FROM 1ST JANUARY		Total increase in 1883.	Total decrease in 1883.	Percentage of increase.
			19th August 1882.	18th August 1883.	To 19th August 1882.	To 18th August 1883.			
1883.		Miles.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs.
1st September ...	Northern Bengal	230	25,708 0 0	26,488 0 0	12,13,319 0 0	14,19,730 0 0	2,06,411 0 0	.....	17
25th August ...	Tirhoot ...	166	11,887 0 0	15,299 0 0	4,21,348 0 0	5,25,392 0 0	1,04,044 0 0	.....	25
5th September ...	Calcutta and South-Eastern.	56	2,350 0 0	4,859 0 0	1,19,056 0 0	1,93,836 0 0	74,780 0 0	.....	63
10th August ...	Nalhati ...	27½	1,115 0 0	1,509 0 0	44,970 0 0	53,462 0 0	8,483 0 0	.....	19
	Total ...	479½	39,060 0 0	51,245 0 0	17,98,702 0 0	21,92,420 0 0	3,03,718 0 0	.....	22

BENGAL PROVINCIAL RAILWAYS.

Weekly Statement of Traffic Receipts.

Latest return received.	Name of Railway.	Length open.	RECEIPTS FOR WEEK ENDING		TOTAL RECEIPTS FROM 1ST JANUARY		Total increase in 1883.	Total decrease in 1883.	Percentage of increase.
			26th August 1882.	25th August 1883.	To 26th August 1882.	To 25th August 1883.			
1883.		Miles.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs.
1st September ...	Northern Bengal	230	35,238 0 0	33,192 0 0	12,48,657 0 0	14,52,922 0 0	2,04,265 0 0	.....	16
25th August ...	Tirhoot ...	166	15,448 0 0	15,861 0 0	4,36,796 0 0	5,41,253 0 0	1,04,457 0 0	.....	24
5th September ...	Calcutta and South-Eastern.	56	4,456 0 0	5,134 0 0	1,23,512 0 0	1,98,970 0 0	75,458 0 0	.....	61
25th August ...	Nalhati ...	27½	1,120 0 0	1,702 0 0	46,099 0 0	55,164 0 0	9,065 0 0	.....	18
	Total ...	479½	56,302 0 0	55,899 0 0	18,55,064 0 0	22,48,309 0 0	3,93,245 0 0	.....	21

DARJEELING-HIMALAYAN RAILWAY COMPANY, LIMITED.

Weekly Statement of Traffic Receipts.

The latest return received	Length open.	RECEIPTS FOR WEEK ENDING		TOTAL RECEIPTS FROM 1ST JULY		Total increase in 1883.	Total decrease in 1883.	Percentage of increase or decrease.
		2nd September 1882.	1st September 1883.	To 2nd September 1882.	To 1st September 1883.			
1st October 1883 ...	50	Rs. A. P. 5,774 0 0	Rs. A. P. 10,354 2 3	Rs. A. P. 48,559 8 3	Rs. A. P. 72,234 0 8	Rs. A. P. 23,374 8 5	Rs. A. P.	+47½

Calcutta, the 1st October 1883.

GILLANDERS, ARBUTHNOT & CO., Agents.



SUPPLEMENT TO The Calcutta Gazette.

WEDNESDAY, OCTOBER 10, 1883.

OFFICIAL PAPERS.

Non-Subscribers to the GAZETTE may receive the SUPPLEMENT separately on payment of Six Rupees per annum if delivered in Calcutta, or Twelve Rupees if sent by Post.

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Rainfall, Weather, and State and Prospects of the Crops.

Statement showing Rainfall, Weather, and State and Prospects of the Crops in the different Districts of Bengal, as reported to Government during the week ending the 6th October 1883.

No.	District, and date of return.	Rainfall at Sudder Station in inches.	Character of the weather, state and prospects of the crops, and state of health at date.
BENGAL.			
<i>Western Districts.</i>			
1	Burdwan, Oct. 6 '83	0·43	Weather—very close. In the greater part of the district the crops on the high lands are suffering from want of rain, and in some places the low lands are drying up. Rain is badly wanted. Prospects unfavourable.
	Culna ..	1·29	
	Cutwa ..	0·39	
2	Bankura, " 6 "	0·14	Weather—hot and clear. Early mornings beginning to be cool. Want of rain is very much felt throughout the district. <i>Aus</i> rice is being harvested. Outturn of <i>amun</i> rice will fall short of what was expected; but even now a shower or two of rain would give very good results. Public health good.
	Bishenpore ..	2·38	
	Malinara ..	Nil	
	Khatra ..	1·50	
3	Beerbhoom, " 6 "	0·54	Weather—generally hot and clear. Want of rain for rice crop increasingly felt. Prospects of harvest somewhat uncertain. Prices of food-grains at present unaltered. Public health satisfactory.
	Rampore Haut ..	0·07	
4	Midnapore, " 6 "	0·01	Weather—clear and warm. Want of rain is keenly felt everywhere. Prospects of crops unfavourable, less so in Contai sub-division. Public health fair.
5	Hooghly, " 6 "	Nil	Weather—hot for the season. Rain much wanted in the Serampore sub-division. <i>Amun</i> has already suffered a great deal. Other crops doing well. Fever prevails in the interior. A few cases of cholera have occurred at the station.
	Howrah ..	.....	Report not received.

No.	District, and date of return.	Rainfall at Sudder Station in inches.	Character of the weather, state and prospects of the crops, and state of health at date.	
BENGAL.—concl'd.				
PRESIDENCY DIVN.	<i>Central Districts.</i>			
6	24-Pergunnahs. Oct. 9 '83	Nil	Weather—hot and dry. Harvesting of early crops nearly finished. More rain much wanted for late crops. Public health generally good.	
7	Nudden, " 6 "	Nil 0.77	Weather—hot and clear. <i>Amun</i> suffering from want of rain throughout district. Rain wanted for all crops. Fever stationary.	
	Kooshtea	...		
	Meherpore	0.59		
	Chooadanga	0.12		
8	Khoobsa, " 6 "	1.68	Weather—very hot, with rain on one day. The cessation of the rains has not as yet caused much damage to crops. In Bagirhat rain which fell in the early part of the week has done much good, in other places more rain is much wanted, but prospects are not bad yet.	
9	Jessore, " 6 "	0.29 0.52	Weather—clear, dry, and warm. Prospects of <i>amun</i> crop on high lands are very bad owing to insufficient rain. Low land <i>amun</i> fair. If there be rain in a fortnight the crops may not suffer. Rain below the average. General health good.	
	Jhenida	...		
	Magura	2.35		
	Narail	1.03		
	Bongong	1.5		
10	Moorshedabad, " 5 "	Nil	Weather—extremely dry and sultry. The drought is causing immense damage to the late rice, which cannot now be an average crop; while the continued absence of rain will, it is feared, cause a total failure of this important crop.	
11	Dinagepore Oct. 5 '83	0.03	Weather—fair. Prospects fair, but rain wanted in the south of the district for <i>amun</i> .	
12	Rajshahye, " 6 "	0.10 Nil	Weather—increasingly hot and dry. In Nowgong both <i>bhil</i> and <i>ropa</i> paddy are suffering for want of rain. <i>Ganja</i> crop doing well up to date. The <i>ropa</i> paddy in the Bharind must be lost unless rain comes soon. Some cholera reported from Nowgong and in the Nattore Town.	
13	Rungpore " 5 "	Nil 0.33 0.47	Weather—hot. Jute is still being cut. Prospects of winter rice and sugarcane not favourable. Fever prevalent. Public health otherwise good.	
14	Bogra, " 6 "	Nil	The week has been drier and hotter than usual. Rain is again very urgently wanted. The state and prospects of the <i>amun</i> crop are very unpromising. Fever is prevalent in most parts of the district.	
15	Pubna, " 6 "	Nil	Weather—dry and hot. Rain much wanted. The rice crop is suffering very much from want of rain and a good flood. The outturn will be very poor.	
16	Darjeeling, " 6 "	0.70	Weather—getting brighter, but clouds still hanging about. Crops in the hills doing well, but more rain much wanted for late rice in the Terai. The tea season promises to close early. Public health good.	
17	Julpigoree, " 6 "	1.42	Weather—seasonable. State and prospects of crops generally favourable. Transplanting of late rice nearly over. <i>Thakuri</i> and <i>kulti kai</i> in parts of the district are backward owing to heavy rain. Land is being prepared for potato. Public health good.	
	Cooch Behar " 5 "	0.58	Weather—fair; getting cooler. Prospects of late rice continue good. Ploughing for cold-weather crops commenced. Public health good.	
	Dinhatta up to 30th Sept.	1.06		
	Mathabhanga up to 29th Sept.	12.18		
	Mecklunge up to 29th Sept.	9.86		
RAJSHAHYE AND COOCH BEHAR DIVN.	<i>Eastern Districts.</i>			
18	Dacca Oct. 6 '83	Nil	Weather—hot. <i>Aus</i> paddy and jute are still being cut. <i>Ashini</i> paddy is being harvested in one station. Prospects of crops good.	
	Manickgunge	0.36		
	Munshigunge	2.11		
	Narsingunge	0.13		
19	Furredpore, " 6 "	Nil 0.39	Weather—except in the south, dry and excessively hot. Rivers much fallen. State and prospects of <i>amun</i> indifferent; sugarcane good. Public health moderate, but there is a good deal of fever in several places.	
20	Madaripore	3.07		
	Backergunge, " 4 "	3.34	Weather—seasonable. Prospects of crops good. Fever has made its appearance in the sub-division of Patuakhali. General health fair.	
21	Mymensingh, " 5 "	Nil 2.59	Weather—grown warmer, with hot sun; less wind; very fine. More rain wanted. The transplanted rice crop will suffer if there is no rain soon. Public health good.	
	Jamaiport	0.73		
	Kishoregunge	0.36		
	Attea	1.31		
22	Chittagong, Oct. 9 '83	0.43	Weather—seasonable. Outturn of <i>aus</i> rice fair. Prices stationary. Cattle-disease still continues.	
23	Noakholly, " 4 "	4.87	Weather—sultry and cloudy at times. Young <i>amun</i> plants are promising; occasional rain has done good to the plants.	
24	Tipperah, " 4 "	3.69 3.94	Weather—fine and very hot. Northerly wind has set in. State and prospects of crops good all round, except in a small area of high land.	
	Brahmunderia	...		
	Chandpore	9.65		
25	Chittagong Hill Tracts, " 2 "	4.29	Weather—rainy throughout the week. Gathering of <i>jam</i> paddy still continues. Plough paddy doing well. Sugarcane not good.	
	Hill Tipperah " 3 "	2.76	Weather—hot during day, and rather cold at close of night. Prospects of paddy and sugarcane fair. Public health good.	
CHITTAGONG DIVN.	<i>BEHAR</i>			
26	Patna, Oct. 5 '83	Nil	Weather—hot. Gathering of <i>bhadoi</i> crops almost completed. Much rain wanted, chiefly in Behar sub-division. Fever and cholera still reported from the interior.	
27	Gya, " 6 "	Nil	Weather—warm, but without signs of rain. The failure of the October rain so far has made things much worse than before. Cholera has almost disappeared, except in the town of Gya. Prices stationary; not very high.	
28	Shabababad, Buxar	6 "	Nil Nil	Weather—fair and growing cool. The premature cessation of the rains endangers the rice crop.

No.	District, and date of return.	Rainfall at Sudder Station in inches.	Character of the weather, state and prospects of the crops, and state of health at date.
BEHAR—concl.			
PAKSA DIVS.—concl.	29 Durbhunga, Oct. 6 '83	Nil	Weather—hot and sultry. The outlook is not promising, for rain is very much wanted and there are no indications of any likely to fall soon. As a rule the <i>bhadoi</i> harvest was only an average one. Prices show a tendency to rise. Public health is generally good.
	30 Mozafferpore, " 6 "	0.05	Weather—close and nearly rainless, though sky sometimes overclouded. The <i>bhadoi</i> harvest has been nearly completed. <i>Rubbee</i> sowings have commenced.
	Hajeeapore " " "	Nil	The continued absence of rain causes grave anxiety for the <i>aghani</i> harvest.
	Seetamarihi " " "	0.23	Public health good.
	31 Saran, " 6 "	Nil	Weather—dry and warm. Harvesting of <i>bhadoi</i> crops completed with average results. Rain most urgently wanted for paddy crop. In low lands the crop is still doing well, but in high lands it is suffering for want of rain. Public health good. Prices easy.
	Sewan " " "	Nil	
	Gopalgunge " " "	Nil	
	32 Chumparun " 6 "	Nil	Weather—seasonable; getting cooler. The protracted drought causes grave anxiety. In some places there is not sufficient moisture in the soil to permit of the <i>rubbee</i> crops being sown. The paddy crop in most places requires rain. The <i>bhadoi</i> crop is being harvested, but the outturn has been far below an average one.
	33 Monghyr Oct. 6 '83	Nil	Weather—seasonable. Prospects of rice crop continue favourable generally, but some damage has been caused to low land crops by heavy rain and in undulations in Begooersah sub-division. Public health good.
	34 Bhagulpore, " 5 "	Nil	The only part of the district where rain has fallen is Soopole, where a fall of 0.04 has been registered. The days have been unusually hot. Heavy dews at night. The paddy crop in high lands has suffered very much from the protracted drought; that in low lands is still doing well. The preparation of lands for the <i>rubbee</i> sowings has been delayed. The ryots are anxiously expecting the long deferred <i>huttya</i> rain. If no rain falls, the prospects will be seriously affected.
BHAGULPORE DIVS.	35 Purneah, " 6 "	Nil	Weather—unusually hot and dry. Reports from Kissengunge sub-division continue to be good. In Arrareah insects are damaging the rice on the high lands. In the Sudder sub-division the winter rice is suffering from the drought of the past week. More rain is much required. Prices rising. Fever prevails almost everywhere.
	Kissengunge " " "	0.54	
	Arrareah " " "	Nil	
	36 Maldah, " 6 "	Nil	Weather—fair. Rain is much wanted for the late rice crop. Common rice selling at 18 seers per rupee. General health good.
	37 Sonthal Pergahs, " 7 "	0.86	Weather—bright and still rather hot during the day; mornings and evenings getting cool. More rain wanted everywhere. Crops in the sunder sub-division look fair, but a good shower will improve prospects.
	Deoghur " " "	Nil	
	Rajmehal " " "	0.33	
	Jauntara " " "	0.28	
	Pakour " " "	Nil	
	ORISSA.		
ORISSA DIVS.	38 Cuttack Oct. 5 '83	0.09	Weather—very hot. Atmosphere clear. <i>Beali</i> being thrashed and gathered; in some places it is still being cut. <i>Sarad</i> thriving well, but rain is urgently wanted. Common rice selling at from 18 to 24 seers per rupee. Public health generally good.
	39 Pooree, " 4 "	1.76	Weather—hot. Prospects of crops generally good. Cattle-disease reported from thana Gope. Small-pox abating in Banpore. Common rice selling at from 27 to 33 seers per rupee.
	40 Balasore, " 5 "	0.07	Weather—hot and close. Weeding nearly completed. <i>Aus</i> paddy being resown. Rain very much needed, especially for high lands, but clouds are gathering and some rain is soon expected. Public health good.
CHOTA NAGPORE.			
<i>South-West Frontier Agency.</i>			
41	Hazaribagh, Oct. 5 '83	Nil	Weather—days warm; mornings and evenings cool. Want of rain is a general complaint throughout the district for the standing rice crop. Coarse rice selling at 20 seers per rupee. General health good.
42	Lohardugga, " 6 "	Nil	Weather—clear and warm. More rain wanted for winter rice. Prices as before. Public health good on the whole.
43	Singbham, " 5 "	Nil	Weather—bright and hot. Prospects continue favourable, but more rain is wanted. Upland rice yielding well. Fever general. Public health otherwise good. Cattle-disease reported from several villages.
44	Manbham, " 6 "	Nil	Weather—clear and hot. Rice crop on high levels wants rain badly. Other crops promising. Small-pox at Topechansi. Fever in Purulia and Echagarh.

Published for general information.

CALCUTTA, STATISTICAL DEPT.,

The 9th October 1883.

COLMAN MACAULAY,

Secy. to the Govt. of Bengal.

STATEMENT SHOWING THE STOCK OF RICE IN AND AROUND CALCUTTA.

NAME OF MARKS.	STOCK IN HAND AS COMPILED ON—											
	1st week of Oct. 1882.	1st week of Nov. 1882.	1st week of Dec. 1882.	1st week of Jan. 1883.	1st week of Feb. 1883.	1st week of March 1883.	1st week of April 1883.	1st week of May 1883.	1st week of June 1883.	1st week of July 1883.	1st week of August 1883.	1st week of Sept. 1883.	1st week of Oct. 1883.
Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.
Balighatia ...	4,31,010	2,69,000	2,51,600	3,85,300	5,51,500	7,40,000	8,35,000	6,59,000	6,32,000	5,67,500	6,11,000	4,65,500
Olladangs ...	63,300	85,300	47,600	57,100	48,200	89,300	1,06,400	1,07,500	1,22,300	95,925	1,05,000	78,300
Chittore, Golabaree, Goomers- Ghat, Hatihola, and Culpy Ghat.	7,05,500	6,49,600	6,95,200	6,62,050	6,11,400	7,22,200	9,14,200	7,92,900	9,59,400	7,95,700	8,89,200	8,97,700
Pathurihuttia, Posta, and Jorabagan.	28,000	10,500	1,04,800	21,700	13,200	19,500	18,200	3,400	15,500	15,400	10,500	11,700
Tollygunge, Chittiah, Kidderpore, and Moonshilunge.	1,96,200	1,06,200	1,17,800	1,00,000	1,11,600	1,20,400	1,37,200	1,51,100	1,12,200	1,02,650	1,14,500	1,29,920
21 Minor Bazaars (estimated) ...	2,40,000	2,40,000	2,40,000	2,40,000	2,40,000	2,40,000	2,40,000	2,40,000	2,40,000	2,40,000	2,40,000	2,40,000
Other retail shops, 3,129 in number (estimated).	2,50,000	2,50,000	2,50,000	2,50,000	2,50,000	2,50,000	2,50,000	2,50,000	2,50,000	2,50,000	2,50,000	2,50,000
Raiyhatatty, Newbargunge, Bhunderesar, and Chander- naskore.	20,551	17,181	9,750	7,994	6,612	6,975	12,625	13,325	10,387	12,956	16,887	20,558
Total ...	18,04,631	16,07,981	16,14,450	17,41,944	18,19,312	21,80,175	24,90,825	22,63,525	23,91,387	22,79,656	21,09,944	20,99,787
On Railway premises on both sides of the river.	740	5,412	4,98	5,672	750	3,876	3,785	2,922	1,526	2,520	4,508	2,648
By Port Com- missioners' re- turns.	33,252	22,309	37,123	35,600	21,322	(on 3rd March 83.)	(on 4th April 83.)	(on 4th May 83.)	(on 4th June 83.)	(on 3rd July 83.)	(on 4th August 83.)	(on 3rd Sept. 83.)
On boats un- loaded ...	2nd to 4th Oct. 82.)	(1st to 3rd Nov. 82.)	(1st to 3rd Dec. 82.)	(1st to 3rd Jan. 83.)	(1st to 3rd Feb. 83.)	69,114	25,109	23,192	31,065	45,030	50,211	30,554
By Canal returns	39,692	24,058	18,887	1,15,634	75,298	(1st to 3rd March 83.)	(2nd to 4th April 83.)	(1st to 3rd May 83.)	(1st to 3rd June 83.)	(1st to 4th July 83.)	(1st to 3rd August 83.)	(2nd to 4th Sept. 83.)
Grand Total of Stocks ...	19,40,315	15,39,867	16,74,868	19,96,991	19,55,918	23,35,184	26,14,089	22,35,297	24,62,227	23,72,037	21,63,566	21,57,073
Probable stock available for exportation by sea.	9 lakhs.	6 lakhs.	6½ lakhs.	9 lakhs.	12½ lakhs.	15½ lakhs.	14 lakhs.	12½ lakhs.	11 lakhs.	11 lakhs.	11½ lakhs.	11¾ lakhs.

COLMAN MACAULAY,
Secy. to the Govt. of Bengal.

STATISTICAL DEPARTMENT,
1st to 5th October 1883.

PRICES-CURRENT OF FOOD-GRAINS, FIREWOOD, AND SALT IN THE DISTRICTS
OF BENGAL FOR THE FORTNIGHT ENDING 30TH SEPTEMBER 1883.

PRICES-CURRENT of Food-grains, Firewood, and Salt in the

Number.	DISTRICTS.	RETAIL SALE:-QUANTITIES PER RUPEE BY																							
		WHEAT.				BARLEY.				RICE, BEST SORT.				RICE, COMMON.				BULRUSH MILLET-CUMBOO, BAJRA.				GREAT MILLET-CHOLUM, JOWAR.			
		Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Present return.	Next preceding return.	Corresponding return of last year.	
BENGAL.																									
<i>Western Districts.</i>																									
1	Burdwan	...	A	13 4	14 8	13 4	25 0	25 0	40 0	17 8	17 8	25 2	26 0	24 12	27 0	...	...	...	...	...	...	...	...
2	Bankura	...	B	13 0	13 0	13 8	14 0	16 0	15 0	19 0	20 0	21 0	25 0	25 0	27 0	...	...	...	...	...	...	...	...
3	Beerbhum	...	C	15 12	15 9	13 4	...	16 0	...	16 8	16 8	16 8	29 8	21 0	21 0	...	...	...	...	...	...	...	...
4	Midnapore	...	D	14 0	13 0	13 0	17 0	17 0	...	17 0	18 0	21 0	24 0	24 0	25 0	...	...	...	...	...	...	...	...
5	Hooghly	...	E	13 0	13 0	20 0	...	...	...	9 0	9 0	10 0	18 0	18 0	20 0	...	...	...	...	...	...	...	...
	Howrah	...		13 0	13 4	13 4	...	...	...	14 0	14 0	15 8	19 0	19 0	17 12	...	...	...	...	...	...	...	...
<i>Central Districts.</i>																									
6	Calcutta	...	F	15 5	15 0	13 11	20 0	20 10	26 14	11 8	10 12	10 0	16 0	16 0	20 0	21 5	21 5	...	20 10	20 10	...	...	
6	24-Pergunnah	...	G	12 12	13 5	13 5	18 0	16 0	20 0	8 0	8 0	10 8	13 5	14 4	17 8	...	...	...	16 0	...	...	...	...
7	Nuddea	...	H	14 8	14 8	14 4	24 10	22 15	26 0	15 4	14 8	16 0	18 4	17 4	19 0	...	...	...	...	...	...	...	...
8	Khoyna	...	I	...	...	...	...	...	...	16 0	16 0	16 0	22 0	22 0	22 0	...	...	...	...	...	...	...	...
9	Jessore	...	J	11 8	13 0	13 0	...	...	...	16 0	15 0	16 0	21 0	21 4	21 4	...	...	...	...	...	...	...	...
10	Moorshedabad	...	K	16 12	16 0	16 0	...	...	...	16 0	15 0	15 0	21 8	22 0	21 4	...	...	...	...	...	...	...	...
11	Dinapore	...	L	16 0	17 4	18 4	16 0	16 0	14 0	19 0	14 4	19 8	21 0	23 0	24 0	...	...	...	...	...	...	...	...
12	Rajshahi	...	M	16 0	15 4	13 8	29 0	29 0	32 0	15 0	15 4	13 8	17 0	22 0	18 8	...	...	...	...	...	...	...	...
13	Rungpore	...	N	13 5	13 5	16 0	...	...	...	13 5	13 5	16 0	19 0	19 0	23 0	...	...	...	...	...	...	...	...
14	Bogra	...	O	18 0	24 0	18 12	...	...	...	12 0	12 12	18 0	23 8	21 12	27 3	...	...	...	...	...	...	...	...
15	Purnia	...	P	18 12	18 12	18 0	...	...	...	8 4	8 4	10 0	17 4	19 0	24 0	...	...	...	...	...	...	...	...
16	Darjeeling	...	Q	8 0	8 0	8 0	8 0	8 0	8 0	5 0	5 0	5 0	13 0	12 0	12 0	...	...	...	...	...	...	...	...
17	Jalpore	...	R	10 0	10 0	10 0	20 0	20 0	20 0	12 8	12 8	14 0	18 0	18 0	20 0	...	...	...	...	...	...	...	...
<i>Eastern Districts.</i>																									
18	Dacca	...	S	13 3	13 5	13 5	20 0	22 10	32 0	16 0	17 0	22 0	17 12	20 0	30 0	...	...	...	...	...	...	...	...
19	Furreedpore	...	T	21 0	21 0	20 0	30 0	30 0	37 8	18 0	20 0	21 0	20 0	22 0	22 0	...	...	...	...	...	...	...	...
20	Backergunge	...	U	...	...	...	...	...	...	18 0	18 0	19 0	21 0	21 0	23 0	...	...	...	...	...	...	...	...
21	Mymensingh	...	V	12 0	11 8	11 8	...	...	...	13 4	13 4	20 0	18 12	19 0	26 0	...	...	...	...	...	...	...	...

* A In the sub-divisions retail prices of salt are as follow:—Culna 14 seers, Cutwa 13½ seers, and Raneegunge 13½ seers.

B Retail prices of salt at Raipore 11 seers, at Onda 16 seers, at Mejia, Bishenpore, Indas, and Sonamukhi 13 seers, and Kotulpore 12 seers.

C In the interior retail prices of salt range from 11 to 13 seers.

D In the sub-divisions retail prices of salt are as follow:—Ghatal 14½ seers and Contai 11½ seers.

E In the sub-divisions retail prices of salt are as follows:—Serampore 13 seers and Jahanabad 13½ seers.

F In the sub-divisions retail prices of salt are as follow:—Baraset and Bussurhat 13 seers, Diamond Harbour 10½ seers, Barrackpore 12½ seers, and Dem-Dam 12 seers.

G In the sub-divisions retail prices of salt are as follow:—Kooshtea and Choadanga 13 seers, Meherpore 11½ seers, and Ranaghat 11½ seers.

H In Satkhiria and Baorhat sub divisions retail price of salt 11 seers.

I In the sub-divisions retail prices of salt are as follow:—Jhenida, Magura, and Narail 12 seers, and Bongong 13 seers.

J In the sub-divisions retail prices of salt are as follow:—Lalbagh 11 seers, Jungypore 12 seers, and Kaudi 11½ seers.

Districts of Bengal for the Fortnight ending 30th September 1883.

THE SEER OF 80 TOLAHs.												WHOLESALE PRICES PER MAUND OF 40 SEERS.												DISTRICTS								
LITTLE MILLET— RAGI OR MUWAA AND CHERRA.			MAIZE OR INDIAN- CORN.			GRAM.			FIREWOOD.			SALT.			SALT.			SALT.			SALT.			DISTRICTS								
Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	DISTRICTS								
S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	R. A.	R. A.	R. A.	R. A.	R. A.	R. A.	Burdwan.									
...	21	0	20	0	21	0	120	0	120	0	13	3	12	13	13	8	2-15-4	3 0	2 15								
...	35	0	32	0	38	8	17	8	17	0	18	0	240	0	240	0	12	0	12	0	13	0	3-3-6	3 1	Bankura.					
...	21	0	21	0	19	0	160	0	160	0	12	0	11	4	12	0	3-2-9	3-5-3	3-1-3	Beerbhoomi.							
...	16	0	16	0	18	0	155	0	155	0	155	0	12	8	12	8	13	5	2 14	2 14	Midnapore.						
...	17	0	17	0	20	0	120	0	120	0	13	9	13	9	13	9	2 14	2 14	2 14	Hooghly.							
...	17	12	17	0	21	0	80	0	80	0	13	0	13	0	12	18	3	0	3 0	2 14	Howrah.						
<i>BRNGAL.</i>																																
<i>Western Districts.</i>																																
S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	R. A.	R. A.	R. A.	R. A.	R. A.	R. A.										
...	21	0	20	0	21	0	120	0	120	0	13	3	12	13	13	8	2-15-4	3 0	2 15								
...	35	0	32	0	38	8	17	8	17	0	18	0	240	0	240	0	12	0	12	0	13	0	3-3-6	3 1						
...	21	0	21	0	19	0	160	0	160	0	12	0	11	4	12	0	3-2-9	3-5-3	3-1-3								
...	16	0	16	0	18	0	155	0	155	0	155	0	12	8	12	8	13	5	2 14	2 14							
...	17	0	17	0	20	0	120	0	120	0	13	9	13	9	13	9	2 14	2 14	2 14								
...	17	12	17	0	21	0	80	0	80	0	13	0	13	0	12	18	3	0	3 0	2 14							
<i>Central Districts.</i>																																
<i>Calcutta.</i>																																
...	26	10	23	0	32	0	20	0	18	13	22	10	90	0	90	0	90	0	13	5	13	5	14	9	2 12					
...	18	0	20	0	20	0	18	0	17	8	17	8	80	0	80	0	100	0	12	13	12	13	13	14	3 0					
...	18	13	18	13	18	12	...	...	...	...	11	10	11	10	11	10	3 0	3-1-11	3 0	Nuddea.					
...	16	0	16	0	12	0	180	0	180	0	160	0	10	8	10	8	11	0	3 4	3 4	3 2	Khoolna.					
...	16	0	16	0	18	0	120	0	120	0	120	0	10	12	11	0	11	8	3 2	3 2	Jessore.						
...	20	0	22	0	22	14	120	0	120	0	120	0	13	0	13	8	12	0	3 0	3 2	Moorsheadabad						
...	20	0	20	0	14	0	160	0	80	0	160	0	11	8	11	0	12	0	3 6	3 6	Dinapore.						
...	19	8	22	8	21	0	240	0	240	0	240	0	12	0	12	0	12	12	3-1-3	3 0	Rajshabya						
...	17	3	17	3	15	0	110	0	110	0	130	0	11	14	11	14	11	8	3 5	3 5	Rungpore.						
...	16	6	19	2	17	1	62	8	62	8	48	12	12	0	12	0	12	0	3-2-3	3-5-4	3-5-4	Bogra.					
...	18	12	18	12	19	0	200	0	200	0	200	0	12	0	12	0	12	0	3-2-6	3 4	3 1	Fulta.					
12	0	12	0	8	0	23	0	25	0	26	0	10	0	8	0	9	0	128	0	10	6	8	160	0	8	0	8	4	8	4	8	Darjeeling.
...	16	0	16	0	16	0	128	0	128	0	128	0	12	0	12	0	11	0	3 4	3 4	3 4	Julphores.					
<i>Eastern Districts.</i>																																
...	19	0	18	0	20	0	99	0	97	0	106	8	13	5	12	10	13	5	3	0	...	2 14	Dacca				
...	20	0	18	0	12	0	120	0	120	0	120	0	12	0	12	0	12	0	3 5	3 5	3 2	Furreedpore.					
...	18	0	18	0	18	0	120	0	120	0	100	0	13	0	13	0	13	0	2 11	2 11	2 15	Backergunge.					
...	15	0	15	0	17	0	12	4	12	4	12	8	3	4	3	4	3	3	3	Mymensugh.			

K Retail price of salt at Raingunge 10½ seers and Nitpore 12 seers.
 L In Nettore retail price of salt 12 seers.
 M In the sub-divisions retail prices of salt are as follow:—Gaibanda 10½ seers, and Kurigram and Nilphamari 12 seers.
 N In Serajunge retail price of salt 13 seers.
 O Retail price of salt at Kurzong 8 seers and Silligoree 10 seers.
 P Retail price of salt at Fallacoota in Alipore sub-division 10 seers.
 Q In the sub-divisions retail prices of salt are as follow:—Manickgunge 12 seers, Moonsheegrungo 10 seers 10½ chittacks, and Narangunge 13½ seers.
 R In the sub-divisions retail prices of salt are as follow:—Goutiundo 13 seers, Madaripore 12 seers, Buanga 11½ seers, and Gopalgunge 12½ seers.
 S In the sub-divisions retail prices of salt are as follow:—Patmakhui 9½ seers, Perozepore 11 seers, and Bhoi 9 seers.
 T In the sub-divisions retail prices of salt are as follow:—Kishoregunge 10½ seers, Atria and Jamalpore 12 seers, and Netrokona 12½ seers.

PRICES-CURRENT of Food-grains, Firewood, and Salt in the

Number.	DISTRICTS.	RETAIL SALE :—QUANTITIES PER RUPEE BY THE																					
		WHEAT.			BARLEY.			RICE, BEST SORT.			RICE, COMMON.			BULRUSH MILLET— CUMBOO, BAJRA.			GREAT MILLET— CHOLUM, JOWAR.						
		Present return.	Net preceding return.	Corresponding return of last year.	Present return.	Net preceding return.	Corresponding return of last year.	Present return.	Net preceding return.	Corresponding return of last year.	Present return.	Net preceding return.	Corresponding return of last year.	Present return.	Net preceding return.	Corresponding return of last year.	Present return.	Net preceding return.	Corresponding return of last year.	Present return.	Net preceding return.	Corresponding return of last year.	
<i>Eastern Districts.—(Concluded.)</i>																							
22	Chittagong	U	S. Ch. 11 4	S. Ch. 11 4	S. Ch. 9 0	S. Ch. ...	S. Ch. ...	S. Ch. 16 0	S. Ch. 16 0	S. Ch. 12 8	S. Ch. 17 0	S. Ch. 18 0	S. Ch. 22 8	S. Ch. ...	S. Ch. ...	S. Ch. ...	S. Ch. ...	S. Ch. ...	S. Ch. ...	S. Ch. ...	S. Ch. ...		
23	Noakhally	V	W	... ...	... ...	... ...	... ...	19 0	19 0	22 0	21 0	21 0	26 0	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...
24	Tipperah	W	S. Ch. 11 12	S. Ch. 11 12	S. Ch. 11 8	S. Ch. ...	S. Ch. ...	S. Ch. 17 0	S. Ch. 18 0	S. Ch. 21 5	S. Ch. 20 12	S. Ch. 25 12	S. Ch. 31 8	S. Ch. ...	S. Ch. ...	S. Ch. ...	S. Ch. ...	S. Ch. ...	S. Ch. ...	S. Ch. ...	S. Ch. ...	S. Ch. ...	
25	Chittagong Hill Tracts.	...	...	...	...	...	...	13 0	13 0	13 5	14 0	14 0	17 12	...	...	...	...	...	...	...	...	...
	Hill Tipperah	10 0	10 0	10 0	10 0	...	...	16 0	16 0	21 0	20 0	22 0	28 0	...	...	...	...	...	...	...	...	...	...
<i>BEHAR.</i>																							
26	Patna	X	S. Ch. 21 0	S. Ch. 21 0	S. Ch. 22 0	S. Ch. 29 0	S. Ch. 29 0	S. Ch. 28 0	S. Ch. 15 0	S. Ch. 15 0	S. Ch. 14 0	S. Ch. 18 0	S. Ch. 18 0	S. Ch. 22 8	S. Ch. ...	S. Ch. ...	S. Ch. ...	S. Ch. ...	S. Ch. ...	S. Ch. ...	S. Ch. ...	S. Ch. ...	
27	Gaya	Y	S. Ch. 17 8	S. Ch. 17 8	S. Ch. 17 0	S. Ch. 23 0	S. Ch. 21 0	S. Ch. 24 0	S. Ch. 12 0	S. Ch. 12 0	S. Ch. 12 0	S. Ch. 16 8	S. Ch. 16 0	S. Ch. 17 8	S. Ch. ...	S. Ch. ...	S. Ch. ...	S. Ch. ...	S. Ch. ...	S. Ch. ...	S. Ch. ...	S. Ch. ...	
28	Shahabad	Z	16 8	15 0	16 0	16 0	24 0	25 0	25 8	11 0	10 0	17 0	16 0	15 0	18 0	26 0	25 0	26 0	25 0	28 0	27 0	28 0	28 0
29	Durbhanga	Z1	14 0	15 0	14 0	24 0	...	30 0	14 0	12 8	14 0	16 0	15 0	17 0	...	...	...	...	...	...	...	...	...
30	Mozaffarpore	Z2	17 0	18 0	16 0	30 0	25 0	40 0	10 0	11 0	12 0	15 0	15 0	17 0	...	...	...	...	...	...	...	...	...
31	Sarun	Z3	17 0	16 0	16 8	28 0	27 0	28 0	10 0	10 0	10 0	17 8	18 8	19 8	...	...	...	29 0	27 0	34 0	...	...	...
32	Chumparun	Z4	19 0	19 0	18 0	31 0	31 0	36 0	14 0	14 0	12 0	17 0	17 8	18 0	...	...	...	...	...	...	...	...	...
33	Monghyr	Z5	17 13	17 9	17 13	27 12	24 21	31 8	13 10	13 2	15 12	16 4	15 12	17 13	...	...	...	...	...	...	...	...	...
34	Bhagulpore	Z6	15 2	15 8	15 2	25 4	22 11	37 14	15 10	15 2	17 11	18 7	17 10	20 3	...	...	...	...	...	...	...	...	...
35	Purnea	Z7	19 0	18 0	14 0	...	...	15 0	16 0	20 0	18 0	18 0	24 0	...	...	...	...	...	...	...	...	...	...
36	Maldah	...	18 0	18 0	17 0	...	...	15 0	16 0	16 0	18 0	20 0	22 0	...	...	...	...	...	...	...	...	...	...
37	Sonthal Perghs.	Z8	13 8	13 0	13 0	...	...	17 8	18 0	16 0	23 0	23 8	22 0	...	...	...	...	...	...	...	...	...	...
<i>ORISSA.</i>																							
38	Cuttack	Z9	13 2	11 13	14 7	...	...	...	13 2	13 2	15 12	21 0	21 0	26 4	...	...	...	...	...	...	...	...	...
39	Pooree	Z10	11 13	10 8	10 4	...	...	21 0	21 0	20 0	23 10	23 10	25 0	...	...	...	...	...	...	...	...	...	...
40	Balasore	Z11	16 0	16 0	14 0	...	...	16 0	16 0	25 0	28 0	28 0	23 0	...	...	...	...	...	...	...	...	...	...
<i>CHOTA NAGPORE.</i>																							
41	Hazareebagh	Z12	15 0	14 0	13 0	24 0	17 0	17 0	10 0	9 0	10 0	18 0	15 0	19 0	...	...	...	...	...	...	...	...	...
42	Loharuugga	Z13	16 0	15 0	14 0	20 0	20 0	20 0	16 0	18 0	20 0	20 0	22 0	22 0	...	...	...	...	...	...	...	...	...
43	Singbham	Z14	18 0	18 0	20 0	24 0	24 0	28 0	32 0	32 0	36 0	36 0	36 0	40 0	...	...	...	...	...	...	...	...	...
44	Manbnoon	Z15	18 0	13 0	12 0	...	...	17 0	16 0	18 0	27 0	26 0	28 0	...	...	...	...	...	...	...	...	...	...

* In the interior retail prices of common rice

U Retail price of salt at Hathazaree 8 seers.

V In the interior retail prices of salt range from 6 to 12½ seers.

W In Brahmanberia and Chandpore sub-divisions retail prices of salt is 13 seers per rupee.

X In Nowada retail price of salt 10 seers.

Y in the sub-divisions retail prices of salt are as follow:—Buxar 11½ seers, Sasseram 11½ seers, and Rhabooh 10½ seers.

Z In the sub-divisions retail prices of salt are as follow:—Madhubau 10 seers and Tajpore 11½ seers.

Z1 In the interior retail prices of salt range from 10 to 12 seers.

Z2 In Sowan and Gopalgunge sub-divisions retail price of salt 12 seers.

Z3 In the interior retail price of salt range from 10 to 12 seers.

Districts of Bengal for the Fortnight ending 30th September 1883.—(Concl'd.)

SEER OF 80 TOLAHs.

LESSER MILLET— RAGI OR MURWA AND CHENA.		MAIZE OR INDIAN- CORN.		GRAM.				FIREWOOD.				SALT.				WHOLESALE PRICES PER MAUND OF 40 SEERS.			
Present return.	Net preceding return.	Corresponding return of last year.	Present return.	Net preceding return.	Corresponding return of last year.	Present return.	Net preceding return.	Corresponding return of last year.	Present return.	Net preceding return.	Corresponding return of last year.	Present return.	Net preceding return.	Corresponding return of last year.	Present return.	Net preceding return.	Corresponding return of last year.	DISTRICTS.	
S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.		
...	13 0	13 0	16 0	40 0	40 0	80 0	10 0	10 0	13 0	...	...	2 14	Chittagong.
...	12 0	12 0	16 0	...	...	...	10 0	10 0	10 0	3 2	3 2	3 2	Noakhally.
...	18 0	16 0	18 0	...	...	...	12 4	12 4	12 8	3 2	3 2	3 2	Tipperah.
...	320 0	320 0	320 0	6 4	6 4	10 9	6 0	6 0	3 4	3 4	Chittagong Hill Tracts.
...	14 0	14 0	14 0	...	...	...	11 0	11 0	10 0	3 4	3 4	3 4	Hill Tipperah.

Eastern Districts.—(Concluded.)

S. Ch.	Rs. A.	Rs. A.	Rs. A.																	
...	...	...	...	...	...	...	13 0	13 0	16 0	40 0	40 0	80 0	10 0	10 0	13 0	...	...	2 14	Chittagong.
...	...	...	...	...	...	...	12 0	12 0	16 0	...	...	...	10 0	10 0	10 0	3 2	3 2	3 2	Noakhally.
...	...	...	...	...	...	...	18 0	16 0	18 0	...	...	...	12 4	12 4	12 8	3 2	3 2	3 2	Tipperah.
...	...	...	...	...	...	...	...	...	320 0	320 0	320 0	6 4	6 4	10 9	6 0	6 0	3 4	3 4	Chittagong Hill Tracts.
...	...	...	...	...	...	...	14 0	14 0	14 0	...	...	...	11 0	11 0	10 0	3 4	3 4	3 4	Hill Tipperah.

BEHAR.

S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	Rs. A.	Rs. A.	Rs. A.						
...	...	...	32 0	32 0	40 0	28 0	28 0	28 0	130 0	130 0	130 0	9 12	9 12	10 8	3-1-6	3-1-6	3 0	Patna.	
...	...	...	...	...	...	21 0	21 0	22 0	160 0	180 0	180 0	11 0	11 0	11 8	3 5	3 5	3 5	Gya.
...	27 8	...	...	32 0	25 0	{ 24 0 to 25 0 }	29 0	120 0	100 0	120 0	12 8	12 8	12 8	3 1	3 1	3 1	Shahabad.		
30 0	29 0	42 8	35 0	...	45 0	22 8	20 0	23 0	180 0	160 0	160 0	10 0	10 0	11 0	3 10	3 10	...	Durbhanga.			
...	...	...	30 0	28 0	45 0	22 0	23 0	25 0	140 0	140 0	140 0	12 0	12 0	12 0	3 4	3 4	3 4	Mozaffarpore.	
30 0	30 0	33 0	30 0	28 0	36 0	26 0	25 0	27 0	160 0	160 0	160 0	11 0	11 0	11 0	3 4	3 4	3 4	Sarun.			
...	...	...	30 0	28 0	41 0	24 0	24 0	25 0	...	...	...	11 0	11 0	11 8	3 6	3 6	3 6	Chumparan.
...	...	...	42 0	36 12	52 8	26 3	24 3	29 7	160 0	120 0	126 0	12 1	12 9	12 10	3-2-4	2 15	3 1	Monghyr.	
...	...	...	35 5	37 14	47 5	22 11	22 11	26 8	151 14	151 14	151 8	12 10	12 10	12 10	3 0	3 2	2-14-6	Bhagulpore.	
...	19 0	20 0	21 0	160 0	160 0	160 0	9 0	9 0	9 0	10 12	4 0	4 0	3 12	Purneah.		
...	...	...	...	...	...	21 0	20 0	21 0	160 0	160 0	200 0	12 0	12 0	12 0	3 2	3 4	3 3	Maldah.
...	28 0	28 0	50 0	18 0	17 0	19 0	200 0	200 0	200 0	10 0	10 0	10 0	11 4	3 12	3 12	3 4	Sonthal Perga.		

ORISSA.

S. Ch.	S. Ch.																				
15 12	18 6	13 2	18 6	18 6	21 0	80 0	80 0	160 0	14 0	14 0	14 0	2 12	2 12	2 12	2 12	Cuttack.	
...	17 1	17 6	15 0	120 0	110 0	120 0	13 0	13 0	13 4	2 12	2 12	2 12	2 12	Pooree.	
...	16 0	16 0	16 0	120 0	120 0	120 0	9 3	9 3	12 12	4 2	4 2	3 2	3 2	Balasore.	

CHUTA NAGPORE.
South-Western Frontier Agency.

S. Ch.	S. Ch.	S. Ch.																			
30 0	33 0	42 0	27 0	...	33 0	20 0	16 0	18 0	240 0	240 0	240 0	10 8	10 0	1 0	3 7	3-9-6	3 8	3 8	Hazareebagh.		
28 0	28 0	30 0	32 0	...	15 0	14 0	15 0	100 0	100 0	120 0	9 0	9 0	9 0	4 0	4 0	4 0	4 2	4 2	Lohardogra.		
...	...	...	...	...	24 0	24 0	24 0	180 0	180 0	180 0	8 0	8 0	8 0	8 12	4 7	4 7	4 0	4 0	Singbham.
...	...	...	...	...	15 0	16 0	18 0	120 0	120 0	120 0	10 12	10 0	10 0	10 12	3 9	3 7	3 12	3 12	Manbham.

vary from 26 $\frac{1}{2}$ to 30 $\frac{1}{2}$ seers per rupee.Z4 In the sub-divisions retail prices of salt are as follow:—Begusai 11 $\frac{1}{2}$ seers, and Jamui 11 seers.Z5 In the sub-divisions retail prices of salt are as follow:—Banka 11 seers, Muddenpura 10 $\frac{1}{2}$ seers, and Soopole 12 seers.

Z6 In the sub-divisions retail prices of salt are as follow:—Kissenungo 10 seers and (A. Tareah at Raneeungo) 10 seers.

Z7 In the sub-divisions retail prices of salt are as follow:—Deoghur 12 seers, Rajmehal and Gedda 12 $\frac{1}{2}$ seers.

Z8 In Khoorda retail price of salt 13 seers.

Z9 In Bhadruck retail price of salt 8 seers.

Z10 Retail price of salt at Chatra is 11 seers and Khurruckdiha 11 $\frac{1}{2}$ seers.Z11 Retail price of salt at Ragunathpore 11 $\frac{1}{2}$ seers, Burrabazar 10 seers, and Gobindpore 11 seers.

Published for general information.

COLMAN MACAULAY,
Secy. to the Govt. of Bengal.

WHOLESALE PRICES-CURRENT of Food-grains, Firewood, and Salt in

Number.	MARTS.	PRICES PER MAUND															
		WHEAT.				BARLEY.				RICE, BEST SORT.				RICE, COMMON.			
		Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.
1	Calcutta ...	2 10 0	2 11 0	2 13 0	2 0 0	1 15 0	1 8 0	3 8 0	3 12 0	4 0 0	2 8 0	2 8 0	2 0 0	1 14 0	1 14 0	2 2 0	2 0 0
2	Serajunge ...	1 14 0	1 13 0	2 8 0	...	...	...	4 0 0	3 12 0	3 7 0	2 4 0	2 2 0	1 5 0	...	...	2 2 0	2 0 0
3	Dacca ...	2 14 0	3 0 0	2 15 0	2 0 0	1 12 0	1 8 0	2 8 0	2 4 0	1 12 0	2 4 0	2 0 0	1 4 6	...	...	2 0 0	1 4 6
4	Naraingunge ...	...	...	...	...	...	...	2 2 0	2 0 0	1 12 0	2 0 0	1 14 0	1 9 0	...	...	2 0 0	1 9 0
5	Chittagong ...	3 8 0	3 8 0	4 2 0	...	...	...	2 8 0	2 8 0	3 2 0	2 4 0	2 2 0	1 12 0	...	...	2 2 0	1 12 0
6	Patna ...	1 14 6	1 14 6	1 13 0	1 6 6	1 6 6	1 5 6	2 10 0	2 10 0	2 14 0	2 8 0	2 3 0	1 12 6	...	...	2 3 0	1 12 6
7	Balasore ...	2 8 0	2 8 0	2 12 0	...	...	...	2 3 0	2 3 0	1 9 0	1 4 0	1 4 0	1 6 9	...	...	2 3 0	1 6 9
8	Pooree ...	...	...	...	...	...	...	...	...	...	2 3 0	2 3 0	1 9 0	...	...	2 3 0	1 9 0
9	Cuttack ...	3 0 0	3 4 0	2 10 0	...	...	...	3 0 0	3 0 0	2 5 0	1 11 0	1 11 0	1 8 0	...	...	3 0 0	1 8 0

CALCUTTA,
The 9th October 1883.

the undermentioned *Marts of Bengal* for the Fortnight ending 30th September 1883.

OF 40 SEERS.

GREAT MILLET— CHOLUM, JOWAR.				LESSER MILLET— RAGI OR MURWA AND CHERNA.				MAIZE OR INDIAN- COKE.				GRAM.				FIREWOOD.				SALT.				MARTS.	
Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.		
R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.		
1 15	0 1	15 0	...	...	...	...	1 8	0 1	13 0	1 4	0 2	0 0	2 2	0 1	12 0	0 6	3 0	6 3 0	6 3	2 12	0 2	12 0	2 10 0	Calcutta.
...	2 6 0	2 6	0 2	5 0	0 6	0 0	6 0	...	2 14	0 3	0 0	2 12 0	0	2 14 0	Serajgunge.	
...	2 2 0	2 4	0 1	14 6	0 6	0 0	7 0 0	5 0	3 0	0 3	4 0 2	14 0	0	2 14 0	Dacca.	
...	2 0 0	2 0	0 2	4 0	0 7	0 0	7 0 0	7 0	2 14	0 2	14 0	2 14 0	0	2 14 0	Naraingunge.	
...	3 0 0	3 0	0 2	8 0	...	...	...	...	4 0	0 4	0 0	2 14 0	0	2 14 0	Chittagong.	
...	1 4	0 1	4 0 0	15 0	1 7 0	1 7	0 1	5 6	0 5	0 0	5 0 0	5 0	3 1	6 3	0 0	3 0 0	0	3 0 0	Patna.
...	2 8 0	2 8	0 2	8 0	0 4	0 0	4 0 0	5 0	4 2	0 4	2 0 3	2 0	0	2 0 3	Balasore.	
...	2 12	0 2	12 0	2 12 0	0	2 12 0	Pooree.	
...	2 5 0	2 0 0	3 0 0	...	...	...	...	2 0 0	2 0	0 1	11 0	0 8	0 0	8 0 0	4 0	2 12	0 2	12 0	2 12 0	0	2 12 0	Outtask.	

Published for general information.

COLMAN MACAULAY,
Secy. to the Govt. of Bengal.

Meteorological Report of the Province of Bengal

MeteoroLOGICAL DIVISIONS.	DISTRICT.	Representative station.	STATION OBSERVATIONS.														
			AIR PRESSURE.			WIND.			TEMPERATURE.								
			Mean barometric height, 10 A.M.	Mean reduced to sea-level.	Variation from mean.	Precipitating direction.	Mean wind velocity.	Highest during week.	Lowest during week.	Mean maximum temperature.	Mean minimum temperature of week.	Mean daily temperature of week.	Variation from normal of week.	Mean 10 A.M. temperature.	Average humidity at 10 A.M.	Average cloud amount at 10 A.M. for week.	
Orissa.	Pooree	Gopalpore	29°841	29°804	—	Variable	112	86°6	78°8	85°8	80°0	82°9	—	84°8	77	4°0	
		False Point	29°870	29°891	+°042	W & V. & V. & V.	120	90°0	74°6	87°4	76°1	81°8	+1°4	83°7	75	6°6	
	Cuttack	Cuttack	29°812	29°894	+°031	Calm	127	93°4	75°8	90°0	77°6	83°8	+0°8	86°7	74	4°7	
	Balasore	Balasore	29°831	29°890	—	N	45	95°0	75°0	90°1	77°1	83°6	—	86°6	73	3°4	
	South-West Midnapore	Sangor Island	29°875	29°901	+°048	W	127	88°7	76°0	88°0	79°1	83°6	+0°1	83°4	83	7°0	
	South 24-Pergunnahs.																
	Midnapore	Midnapore	29°706	29°901	—	Variable	—	90°0	74°8	87°9	75°6	81°8	—	86°5	70	3°0	
	24-Pergunnahs																
	Howrah	Calcutta	29°860	29°888	+°030	WNW	55	89°5	75°2	87°7	77°0	82°4	+0°3	85°4	76	5°1	
	Hoochly																
	Burdwan	Burdwan	29°707	29°898	+°040	Calm	38	97°6	76°9	92°0	78°0	85°0	+1°1	85°9	71	3°6	
	Bankura																
	Beerbhoom	Raniganj	29°487	—	—	SW	55	92°5	74°9	91°7	77°0	84°4	—	86°3	68	0°7	
	West Burdwan																
	Moorshedabad	Berhampore	29°844	29°911	+069	Calm	56°8	92°7	74°8	91°6	76°8	81°2	+0°3	86°3	74	5°7	
	Nuddea																
	Jessore	Jessore	29°865	29°898	+°054	Variable	33	92°8	74°9	90°3	76°9	83°6	+0°2	86°4	78	5°7	
	Khoolna																
	Chittagong	Chittagong	29°828	29°918	+°049	NE	55	88°1	75°0	86°6	76°2	81°4	+0°4	83°4	84	4°4	
	Chittagong Hill Tracts	Demaguri															
	Backergunj	Barrisal	29°841	—	—	N	224°2	87°6	73°9	85°6	76°1	80°9	—	85°5	83	3°9	
	Noakholly	Noakholly	29°859	29°899	—	NE	10°4	92°8	73°7	87°3	76°5	81°9	—	83°6	79	8°0	
	Furreedpore	Furreedpore	29°818	—	—	SE & C	56°9	88°5	75°9	86°2	77°0	81°6	—	84°7	78	3°4	
	Dacca	Dacca	29°866	29°901	+°053	SSE & W	34	90°8	75°6	88°1	77°5	82°8	+0°1	85°3	80	3°6	
	Commillah	Commillah	29°867	29°903	—	SE	—	87°6	73°8	85°2	76°2	79°7	—	83°2	81	4°3	
	Mymensingh	Mymensingh	29°843	—	—	SE	99	91°3	74°1	88°9	74°9	81°9	—	85°2	77	4°3	
	Bogra and Pubna	Serajgunge	29°832	—	—	NE	69	89°4	75°2	88°3	76°2	82°2	—	85°4	76	4°3	
	Rajshahye	Rampore Beaulen	29°783	29°857	—	SE & W	69	93°6	73°6	91°5	76°4	84°0	—	86°5	73	4°2	
	Dinagepore	Dinagepore	29°770	29°890	—	SE	65	91°6	75°1	90°2	76°0	83°1	—	86°4	71	3°6	
	Rungpore	Rungpore	29°780	29°914	—	Variable	58	91°8	73°6	89°4	74°6	82°0	—	85°0	72	3°9	
	Julpigoree	Julpigoree	29°540	29°828	—	ESE & NE.	86	90°0	72°1	87°9	72°8	80°4	—	82°6	70	3°1	
	Cooch Behar																
	Darjeeling Hill Districts	Darjeeling	23°668	—	—	Calm	96	64°6	51°2	62°8	53°1	57°9	—	58°0	93	2°7	
	Purneah	Purneah	29°758	29°881	+°051	Calm	3	92°7	74°8	90°8	75°7	83°2	+0°5	87°0	78	3°4	
	North Bhagulpore																
	Mozafferpore	Durjhunga	29°717	29°884	+°079	ESE	45	93°9	76°5	90°8	78°7	84°8	+2°2	86°3	82	4°6	
	Durbhanga																
	Chumparun	Motihari	—	—	—	ESE	10°4	89°1	74°4	87°0	76°8	81°9	—	87°3	68	2°5	
	Sarun	Chupra	29°664	—	—	C	7	94°5	73°5	93°6	76°6	83°1	—	88°0	97	1°4	
		Dehree	29°543	26°896	—	SSW	—	90°9	75°0	89°3	77°0	83°2	—	82°1	50	0°2	
	Shahabad	Buxar	29°638	29°879	—	W	86	96°9	70°8	96°3	75°2	85°8	—	91°1	51	0°0	
		Arrah	29°660	29°855	—	SSW	51	94°6	70°7	93°0	75°2	84°1	—	87°1	61	1°1	
	Gya	Gya	29°480	29°854	+°014	C	31	96°7	66°2	96°0	72°3	84°2	+0°8	91°7	47	0°0	
	Patna	Bankipore	29°687	29°869	+°038	SW	55	94°4	74°7	93°8	78°0	85°9	+2°1	88°7	59	1°4	
	South Bhagulpore	Bhagulpore	29°710	29°873	—	C	29	93°4	74°0	91°2	76°5	83°9	—	88°2	63	0°6	
	Monghyr																
	Sonthal Pergunnahs	Doomka	29°384	—	—	SE	—	92°6	71°8	90°6	74°4	82°5	—	86°0	81	0°3	
	Hazaribagh	Hazaribagh	27°890	29°870	+°053	NW	113	89°5	69°7	88°9	70°6	79°7	+2°3	84°1	45	1°0	
	Lohardanga	Raneechee	27°771	29°875	—	—	—	87°8	62°2	87°3	66°8	77°0	—	84°2	45	0°6	
	Manbhum																
	Singhbhum	Chyebasa	29°166	—	—	Variable	—	—	—	—	74°0	—	—	85°3	60	0°3	

Explanation of Summary.—The normal means of air pressure and temperature are the arithmetical averages or means of the readings during the observations, rainfall, the normal means are the numerical means or averages of the rainfall in that district determined from the returns sent in by the sub-divisions from that district, (i.e.) the total rainfall at the sub-divisional stations in the district sending in returns divided by the number of stations. A rainfall

For the week ending Friday, the 5th October 1883.

Rainfall of week at observing stations.	DISTRICT OBSERVATIONS.											METEOROLOGICAL DIVISION.	
	RAINFALL.												
	Of week.		Since 1st of September.			Since 15th May.			Representative station.	DISTRICT.			
	Mean for district.	Normal average for district.	Mean for district.	Normal mean.	Variation.	Mean for district.	Normal mean.	Variation.					
1.35	0.91	1.88	11.18	11.59	-0.41	57.13	46.92	+10.21	1.5	3.3	Gopalpore	...	
0.7	0.02	1.48	10.01	10.41	-0.40	56.25	45.04	+11.21	0.3	1.7	False Point	...	
0.17	Nil	1.66	5.90	12.62	-6.72	49.10	47.88	+1.38	Nil	2.3	Cuttack	...	
1.30	0.49	1.65	7.22	12.34	-5.12	49.54	54.28	-4.74	1.0	2.3	Balasore	...	
0.18	Nil	0.77	2.94	8.88	-5.94	39.28	46.18	-6.90	0.3	1.4	Saugor Island	...	
0.22	0.37	1.03	3.70	9.28	-5.58	42.46	46.96	-4.50	0.9	2.6	Midnapore	...	
0.52	0.37	1.12	4.14	8.43	-4.29	46.47	42.43	+4.04	0.7	1.8	Burdwan	...	
0.35	0.95	1.12	5.74	9.26	-3.52	50.23	47.61	+2.62	1.0	2.2	Ranigunge	...	
0.08	0.15	1.27	4.35	11.49	-7.14	37.96	46.54	-8.58	0.7	2.5	Berhampore	...	
0.60	0.60	1.27	3.54	9.41	-5.87	33.10	46.27	-13.17	0.7	2.0	Moorsheadabad	...	
0.39	0.78	1.17	5.64	9.33	-3.60	39.30	49.36	-10.06	1.0	2.3	Howrah	...	
0.85	0.42	2.67	16.79	16.29	+0.50	121.09	119.71	+1.37	1.5	3.1	Hooghly	...	
		2.90	15.82				73.47					Bankura	...
1.91	0.29	1.88	8.38	13.08	-4.70	53.05	72.83	-19.78	1.8	3.5	Beerbhoom	...	
1.48	0.10	2.50	16.78	19.80	-3.02	104.56	102.96	+1.60	1.0	4.0	West Burdwan	...	
0.80	0.65	1.44	4.71	10.26	-5.55	39.25	52.98	-13.73	1.0	2.3	Nogkholly	...	
0.07	0.16	1.66	2.97	11.86	-8.89	39.29	57.85	-18.57	0.7	2.7	Furreedpore	...	
0.74	1.02	1.84	11.79	13.04	-1.25	62.25	66.78	-4.53	0.8	3.0	Dacca	...	
—	Nil	1.85	4.23	15.04	-10.81	41.85	64.71	-22.86	Nil	2.7	Commillah	...	
0.01	Nil	1.39	2.86	11.65	-8.79	34.32	53.69	-19.37	Nil	2.0	Mymensingh	...	
0.14		1.36	12.64				50.42			2.4	Serajgunge	...	
—	0.01	1.71	5.19	12.75	-7.56	39.07	56.88	-17.81	0.5	1.9	Rampore Beauleah	...	
—	Nil	2.46	8.31	15.69	-7.38	51.17	73.56	-22.39	Nil	2.5	Dinagepore	...	
0.26	0.72	3.13	26.17	24.45	+1.72	112.72	108.63	+4.09	2.8	3.5	Rungpore	...	
0.70	0.70	3.29	19.51	27.41	-7.90	138.05	144.59	-6.54	3.0	3.5	Julpigoree	...	
—	0.67	0.48	7.09	13.48	-6.39	51.19	55.18	-3.99	0.2	1.8	Darjeeling	...	
—	0.10	0.68	3.57	9.39	-5.82	39.81	39.37	+0.44	0.5	1.2	Purneah	...	
0.16	0.01	2.98	1.89	10.13	-8.24	31.45	42.79	-11.34	0.3	1.4	Mozufferpore	...	
—		1.23	8.88				38.59			1.0	Durbhunga	...	
—	—	—	—	—	—	—	—	—	—	—	Dehree	...	
—	Nil	0.94	5.71	7.27	-1.56	29.85	36.72	-7.37	Nil	1.5	Buxar	...	
—	—	—	—	—	—	—	—	—	—	—	Shahabad	...	
—	Nil	1.14	5.03	6.69	-1.06	37.01	37.60	-0.59	Nil	1.2	Gya	...	
—	Nil	0.67	4.02	7.14	-3.12	40.88	36.64	+4.24	Nil	1.2	Bankipore	...	
—	Nil	0.93	5.19	7.82	-2.63	36.71	39.04	-2.33	Nil	1.6	Patna	...	
—	0.16	0.91	5.03	10.31	-5.28	39.85	46.42	-7.57	0.3	1.9	South Bhagulpore	...	
—	Nil	1.60	9.93	8.94	+0.99	40.30	45.87	-5.07	Nil	2.3	Monghyr	...	
—	Nil	1.24	7.64	8.60	-0.96	44.34	44.20	+0.14	Nil	1.9	Hazaribagh	...	
—	Nil	1.66	7.02	9.17	-2.15	50.23	48.42	+1.81	Nil	2.1	Lohardugga	...	
											Manbhoom	...	
											Chittagong	...	

Period for the past 12 years. The variations are *negative* when the mean for the week is less than the corresponding normal mean and *positive* when greater.
 10. The number denoting cloud amount represent the part of the sky covered, the whole sky being denoted by 10. Under the head "district observations" stations for the period in question during the past 12 years. The "means for the district" are the numerical averages of the rainfall returns received by one on which at least an hundredth of an inch fell.

Statement of Rainfall in Bengal for the week ending Friday (6 p.m.), the 5th of October 1883.

Meteorological division.	District.	Station.	RAINFALL.						Total.	Total rainfall from 1st September to 5th October.	Average total rainfall from 1st September to 5th October.	Total rainfall since 15th May.	Average rainfall from 15th May to date.	
			Saturday, 29th September.	Sunday, 30th September.	Monday, 1st October.	Tuesday, 2nd October.	Wednesday, 3rd October.	Thursday, 4th October.						
ORISSA	Poores	Pooree	0.50	0.84	—	—	—	6.17	3	1.51	13.73	10.60	51.10	40.60
		Khurdah	—	—	—	—	—	—	1	0.64	10.22	11.84	53.60	49.50
		Banpur	—	—	—	—	0.16	—	1	0.16	41.97	11.97	55.44	41.62
	Cuttack	False Point	1.31	—	—	—	—	—	1	1.31	8.76	11.97	63.37	52.84
		Hookitoba	—	—	—	—	—	—	—	—	—	—	—	—
		Jagatsingapore	—	—	—	—	—	—	—	—	—	9.56	—	33.18
SOUTH-WEST BENGAL.	Midnapore	Banki	—	—	—	—	—	—	—	—	—	—	—	—
		Cuttack	0.05	—	0.07	—	—	—	1	0.05	12.93	11.01	61.81	49.27
		Kendrapara	—	—	—	—	—	—	—	—	Nil	6.45	10.26	80.51
		Jajpore	—	—	—	—	—	—	—	—	Nil	9.14	10.85	54.40
		Balasore	—	—	—	—	—	—	—	—	Nil	6.80	12.62	55.98
	24-Pergunnahs	Chandbali	—	—	—	—	—	—	—	—	Nil	8.46	10.72	48.94
		Bhuddruck	—	—	—	—	—	—	—	—	Nil	3.19	12.94	46.11
		Sorah	—	—	—	—	—	—	—	—	Nil	3.76	1.61	51.23
		Balasore	—	—	—	—	—	—	—	—	Nil	5.49	11.61	49.78
		Jelasore	—	—	—	—	—	—	—	—	Nil	7.80	14.23	47.93
EAST BENGAL	Burwan	Baripodah	—	—	—	—	—	—	—	—	Nil	—	—	—
		Contai	0.23	—	—	—	—	—	1	0.33	5.15	12.80	50.20	53.45
		Saugor Island	0.03	—	—	—	0.32	—	2	1.15	11.79	11.95	56.05	55.71
		Tumlock	—	—	—	—	—	—	—	—	Nil	3.30	8.94	43.51
		Midnapore	0.01	—	—	—	—	—	1	0.01	4.28	7.94	38.01	42.63
	Jessore	Ghatal	—	—	—	—	—	—	—	—	Nil	1.25	9.77	36.31
		Diamond Harbour	—	—	—	—	—	—	—	—	Nil	4.74	12.27	42.28
		Alipore Jail	2.14	—	—	—	—	—	1	2.14	5.35	10.33	33.94	50.54
		Barrackpore	—	—	—	—	—	—	—	—	Nil	2.47	8.25	38.80
		Dum-Dum	0.11	—	—	—	—	—	1	0.11	3.16	9.64	39.32	46.88
Burdwan	Bankoora	Barnet	0.04	—	—	—	—	—	1	0.04	2.93	9.94	37.21	41.28
		Buseerhat	0.05	—	—	—	—	—	1	0.05	5.14	9.06	54.90	45.29
		Howrah	0.34	0.01	—	—	—	—	2	0.35	4.34	9.29	36.84	47.34
		Moher-ka (Olobriah)	0.04	0.94	—	—	—	—	2	0.93	5.89	9.22	47.01	58.71
		Hooghly	0.02	—	—	—	—	—	1	0.02	2.44	9.05	40.36	46.08
	Nuddea	Serampore	—	—	—	—	—	—	—	—	Nil	3.34	8.27	43.98
		Hooghly	—	—	—	—	—	—	—	—	Nil	1.89	10.46	47.35
		Jehanabad	—	—	—	—	—	—	—	—	Nil	—	—	50.00
		Culna	—	—	0.79	—	—	—	1	0.79	6.00	7.16	45.34	40.05
		Burdwan	0.32	—	—	—	—	—	1	0.32	1.66	8.3	52.53	42.77
Mymensingh	Chittagong	Cutwa	—	—	—	—	—	—	—	—	Nil	4.78	9.82	41.52
		Raneeunge	0.25	—	0.10	—	—	—	2	0.35	7.68	7.40	63.67	41.80
		Bankoora	0.14	—	—	—	—	—	1	0.14	5.32	8.82	45.80	46.34
		Bishenpore	2.38	—	—	—	—	—	1	2.38	5.24	8.55	45.14	47.03
		Malira	—	—	—	—	—	—	1	—	4.55	6.53	41.62	41.24
	Moorsheadabad	Khatra	—	—	1.50	—	—	—	1	1.50	8.54	10.67	48.53	52.05
		Beerbhoom	Bh. Soory	0.54	—	—	—	—	1	0.54	3.58	10.72	62.61	49.12
		Hetampore	2.7	—	—	—	—	—	1	2.70	6.24	12.14	45.38	52.13
		Bonzong	1.05	—	—	—	—	—	1	1.05	2.55	9.87	38.04	48.01
		Ranaghat	—	—	—	—	—	—	—	—	Nil	5.43	7.59	47.42
Dacca	Kishmaghur	Kishmaghur	—	—	—	—	—	—	—	—	Nil	2.08	8.20	42.66
		Choodadanga	0.12	—	—	—	—	—	1	0.12	1.42	11.11	23.92	48.79
		Meherpore	0.59	—	—	—	—	—	1	0.59	3.74	8.83	32.15	44.65
		Kooshita	0.05	—	—	—	—	—	1	0.05	3.59	10.93	33.49	59.63
		Khoolna	0.04	—	—	—	—	—	1	0.04	6.82	9.13	55.20	48.21
	Jessore	Satkira	0.56	—	—	—	—	—	1	0.56	7.80	10.06	44.65	55.84
		Bagirhat	0.56	—	—	—	—	—	1	0.56	7.85	9.92	37.95	50.87
		Khoolna	1.68	—	—	—	—	—	1	1.68	7.85	—	—	—
		Narsil	0.82	—	—	—	—	—	1	0.82	5.29	8.34	33.12	44.19
		Jessore	0.29	—	—	—	—	—	1	0.29	6.73	8.43	36.53	43.49
Furreedpore	Moorsheadabad	Jhenidah	0.52	—	—	—	—	—	1	0.52	2.50	10.08	28.92	56.03
		Magorah	1.52	—	—	—	—	—	1	1.52	3.95	9.31	38.74	46.05
		Kandi	—	—	—	—	—	—	—	—	Nil	4.26	11.32	42.25
		Rampore Haut	0.62	—	—	—	—	—	1	0.62	6.19	11.46	46.07	46.85
		Berhampore	0.08	—	—	—	—	—	1	0.08	2.74	12.52	35.68	48.47
	Backergunge	Lalbagh	—	—	—	—	—	—	—	—	Nil	2.75	12.36	32.52
		Azimgunge	0.07	—	—	—	—	—	1	0.07	4.67	10.18	39.03	46.98
		Jungipore	0.35	—	—	—	—	—	1	0.35	3.45	10.83	32.18	41.93
		Lalgola	0.55	—	—	—	—	—	1	0.55	6.40	11.70	37.97	45.77
		Patuakhally	—	—	0.70	—	—	—	—	—	—	—	—	—
Comilla	Furreedpore	Perzeopore	0.43	—	—	—	—	—	—	—	—	0.70	8.94	14.63
		Burrisal	0.14	0.08	0.31	—	—	—	1	0.43	6.65	12.23	45.97	65.13
		Bhola	0.61	0.05	—	—	—	—	3	0.53	7.75	11.92	48.44	62.03
		Noakholly	0											

Statement of Rainfall in Bengal for the week ending Friday (6 p.m.), the 5th of Oct. 1883—concl'd.

Meteorological division.	District.	Station.	RAINFALL.							TOTAL.	Number of rainy days.	Rainfall of week.	Total rainfall from 1st September to 5th October.	Average total rainfall from 1st September to 5th October.	Total rainfall since 15th May.	Average rainfall from 15th May to date.	
			Saturday, 29th September.	Sunday, 30th September.	Monday, 1st October.	Tuesday, 2nd October.	Wednesday, 3rd October.	Thursday, 4th October.	Friday, 5th October.								
NORTH BENGAL	Pubna	Pubna Seraiunge	.....	.....	.....	.....	.....	.....	.....	Nil	30.8	11.87	28.96	51.70	40.74	40.02
	Bogra	Sherpore Nowshilla Bogra Panchbibi	.....	.....	.....	.....	.....	.....	.....	Nil	3.13	12.11	31.72	59.82	27.63	54.13
	Rajshahiye	Beauleah Nattore	0.10	.....	.....	.....	.....	.....	1	0.10	3.72	12.53	26.47	50.93	24.77	53.13
	Maldah	Maldah	.....	.....	.....	.....	.....	.....	.....	Nil	0.95	13.40	24.77	53.13	—	—
	Dinagepore	Mohadebpore Churamon Raigunge Dinagepore Baloorghat	.....	0.02	.....	.....	.....	.....	.....	Nil	5.85	11.48	62.00	62.00	15.26	59.64
	Rungpore	Bhawanigunge Rungpore Kurigram Bagdogra	0.03	1	0.02	4.33	11.64	40.30	54.99	7.19	54.91
	Julpigoree	Julpigoree	0.34	0.22	.....	.....	0.22	0.64	4	1.42	31.66	25.62	135.32	109.44	—	—
	Cooch Behar	Dinhatta Cooch Behar Micklingunge Mataabhangha	0.02	0.03	.....	.....	0.01	0.02	3	0.05	12.93	24.34	68.82	99.73	28.82	121.02
	Darjeeling	Buxa Silliguri Darjeeling Kalimpong	0.34	4.11	.....	.....	0.25	1.39	4	6.09	32.69	37.39	178.05	180.70	5.72	—
	Purneah	Kissengunge Arrareah Purneah	0.35	.....	.....	.....	.....	.....	1	0.35	8.30	14.41	53.75	63.25	10.68	61.89
	North Bhagulpore	Maddapore Soopool	.....	.....	.....	.....	.....	.....	—	Nil	7.09	10.93	44.91	40.01	5.42	53.55
	Durbhunga	Tajpore Durbhunga Madhubani	0.30	.....	.....	.....	.....	.....	1	0.30	4.65	7.85	43.01	37.00	2.63	41.55
	Mozafferpore	Sitamarhi Mozafferpore Hajipore	0.23	0.05	.....	.....	.....	.....	1	0.23	2.65	8.95	33.30	37.96	0.05	40.96
	Chumparun	Motihari Bettiah Gopaiunge	.....	.....	0.03	.....	.....	.....	1	0.03	0.81	8.80	34.25	32.28	1.91	44.81
	Sarun	Sewai Chuprak	.....	.....	.....	.....	0.04	.....	3	0.70	2.95	9.92	27.56	44.24	11.63	41.87
	Shahabad	Buxar Dehree Bhooaah Sassaram Arrah	.....	.....	.....	.....	0.06	0.06	2	0.12	Nil	10.07	7.70	35.39	—	—
	Gya	Aurungabad Gya Nowadah Jehanabad	.....	.....	.....	.....	.....	.....	—	Nil	6.47	6.76	33.67	34.15	—	—
	Patna	Patna Dinapore Behar Barh	.....	.....	.....	.....	.....	.....	—	Nil	4.72	—	28.70	39.71	4.72	36.94
	Monghyr	Begooersai Monzhyr Jamui	.....	.....	.....	.....	.....	.....	—	Nil	7.85	7.75	27.65	37.83	4.06	35.82
	South Bhagulpore	Bhagulpore Banka	.....	.....	.....	.....	.....	.....	—	Nil	4.06	7.33	29.40	36.20	7.24	36.20
	Sonthal Per-gunnahs.	Rajmehal Goddha Pakour Nya Doonka	.....	.....	.....	.....	.....	.....	—	Nil	6.87	6.80	39.02	35.41	4.18	36.72
	Hazaribagh	Pachamba Hazaribagh Semtagura Nahudi Hills	0.86	.....	.....	.....	.....	.....	—	Nil	3.74	7.05	31.24	38.68	6.96	37.97
	Lohardugga	Lohardugga Ranobi Palamow	0.08	.....	.....	.....	.....	.....	—	Nil	9.16	6.89	50.31	55.60	7.81	42.98
	Singbloom	Chyebassa	.....	.....	.....	.....	.....	.....	—	Nil	2.25	6.80	33.83	40.60	8.13	40.60
	Manbloom	Purulia Gobindpore	.....	.....	.....	.....	.....	.....	—	Nil	3.87	8.71	40.91	44.53	9.08	44.53

Explanation.—Indicates that no rain has fallen. If the return for any day has not been received, the corresponding space is left blank. If some of the returns are wanting, the corresponding spaces in the total rainfall columns are left blank.

**SUMMARY OF THE METEOROLOGICAL AND RAINFALL OBSERVATIONS TAKEN IN BENGAL FOR THE WEEK ENDING FRIDAY,
THE 5TH OF OCTOBER 1883.**

DURING the week ending the 28th of September, it was noticed that pressure had been gradually but steadily increasing, till it was rather above the normal for the period. Pressure also at the close of that week had become very uniform over the whole reporting area, and there were, as noticed in last week's report, very distinct indications of the rapid contraction of the area of rainfall. On the 29th, pressure continued to increase, and the area of rainfall diminished, and on this day the only general rainfall was received in South-West and East Bengal. Slight showers it is true fell in North Bengal, North Behar, and Orissa, but they were very few, and on the average very light. Calms and light irregular winds were reported at this time from most districts, but there was a distinct tendency of the winds, particularly in Chutia Nagpur, South-West Bengal, and Orissa, to become northerly and north-westerly in direction. It was therefore evident that from the very commencement of the present week, the south-west monsoon winds were being driven back from the land area, and at the close of the week dry northerly and north-westerly winds had become fairly well established over the greater part of the Province. On the 30th, pressure again increased, and was much above the normal, while, as before indicated, dry northerly and north-westerly winds having set in over the western divisions of the Province, the area of rainfall again contracted, and rain was only reported from a few stations in East and North Bengal, in which localities on this day south-easterly winds generally prevailed. On the 1st of October the northerly winds having extended their action as far as some of the stations in East Bengal, rainfall was confined to a few slight local showers, and even these have become fewer in number, and the rainfall smaller in quantity during the concluding days of the week. Leaving out of consideration the 29th, or the first day of the week under review, it may be said that for the last six days general rainfall has been practically absent from all divisions and only a very small number of local showers have been reported. Pressure has still continued to increase during the greater part of the week, up till, in fact, the 5th instant, and the whole of the conditions for the week under review have been more like those of the second or third week of October than those of the end of September, and it would probably be true to say that these steady, dry, northerly and north-westerly winds have set in about ten days or a fortnight earlier than usual. For the present of course the rainy season appears to be practically over in Bengal, and there does not seem to be much probability that anything like general rain will again fall over the whole Province during the present monsoon season, unless it is brought up by the formation of a barometric depression or cyclonic vortex in the Bay, which would in its onward progress over the land area cause general, and perhaps heavy rain over all the parts of the country which might be affected by it. It is, however, to be noted that on the 5th pressure fell comparatively rapidly, though as the fall was general over the greater part of India, the general conditions had not changed much.

From what has been previously said, it will be seen that the barometer has been decidedly high throughout the week almost in fact up to its close. The average pressure for the week is therefore decidedly above the normal at almost all stations. Dacea, indeed, is the only station which, as shown in the previous table, has recorded a comparatively low pressure, the defect there having been 0.05". At all other stations an excess pressure is shown, the average excess above the normal being between 0.04" and 0.05", and the excess at the respective stations ranging from 0.014" at Gya to 0.079" at Durbhunga. Temperature has generally been slightly above the normal though with the prevalence of northerly winds, humidity has been decidedly lower than usual the morning temperatures, have generally slightly fallen during the week, though the maximum temperatures during the day have still kept high. In Behar and Chutia Nagpur, temperature has been on the average considerably above the normal. In East and South-West Bengal temperature has not varied much from the normal, while in Orissa, temperature has been distinctly below the normal.

The following table gives the usual summary of the temperature and rainfall data for each of the seven meteorological divisions of the Province.

METEOROLOGICAL DISTRICT.	TEMPERATURE						RAINFALL.									
	Highest observed during week.	Lowest observed during week.	Average for week.			Average mean of week above or below normal mean of week.	Of week.	Rainy days.	Since 1st of September.			Since May 15th.				
			Of highest day.	Of lowest day.	Of mean for day.				Average.	Normal average.	Variation.	Average number in week.	Normal average number.	Variation.	Average.	Normal average.
Orissa	93.4	74.6	88.3	77.7	82.0	-0.9	0.31	1.67	-1.36	0.6	2.6	-2.0	8.63	11.70	53.25	46.79
South-West Bengal	97.67	74.8	89.9	77.2	83.6	+0.1	0.47	1.16	-0.69	0.8	2.3	-1.5	4.56	9.75	41.74	47.40
East Bengal	92.8	73.7	86.6	76.3	81.5	+0.2	0.54	1.98	-1.44	1.0	3.1	-2.1	8.71	13.84	60.96	72.44
North Bengal	93.6	72.1	87.5	75.2	82.3	-	0.19	2.04	-1.85	0.9	2.5	-1.6	9.58	15.63	54.25	70.10
North Behar	94.5	74.4	89.6	77.0	83.8	+1.4	0.07	1.27	-1.20	0.4	1.4	-1.0	4.44	10.74	41.15	44.85
South Behar	96.9	66.2	92.9	75.5	84.2	+1.5	0.04	0.92	-0.88	0.1	1.5	-1.4	5.01	8.07	36.77	39.90
Chutia Nagpur	89.5	62.2	88.1	69.7	78.4	+2.2	Nil	1.38	-1.68	0	2.1	-2.1	8.75	8.82	43.09	45.19

From what has been previously stated, it will be seen that the rainfall of the past week must have fallen very considerably below the normal. It is true that in normal years the rainfall over Bengal diminishes very considerably from the end of September, but it is unusual for the rains to practically stop at the close of that month, and thus the rainfall for the past week, when compared with the normal fall for the same period, is uniformly and largely in defect over the whole area. The normal fall during the week under review is in nearly all the meteorological districts between one and two inches, but the actual rainfall during the past week has not averaged much more than two-tenths of an inch. The highest average rainfall in any meteorological district is just half an inch in East Bengal, while Chutia Nagpore has been absolutely rainless. Expressed in percentages, South-West Bengal during the past week has received 40 per cent of the normal fall, East Bengal 27 per cent, Orissa 19 per cent, North Bengal 9 per cent, and North and South Behar about 5 per cent of the normal fall. Chutia Nagpore having received no rain, of course no percentage can be given. The number of rainy days has of course varied to a corresponding extent, and in all districts the number of rainy days has been largely in defect of the normal.

These numbers, however, scarcely represent the want of rain during the past week in its full force, and some further idea of the character of the weather during this period may be obtained by stating the proportion of stations in each meteorological division which have been absolutely rainless during the week. Thus, from the reports which have been received, 7 stations in Orissa were absolutely rainless, as against 5 stations which received rain. In South-West Bengal 12 stations received no rain while 30 stations reported rain on one day, and 4 on more than one day. In East Bengal 7 stations were rainless, 13 stations received rain on one day and 5 on more than one day. In North Bengal, 14 stations were absolutely rainless, while 11 stations received rain. In North Behar, 5 stations received rain as against 9 stations which were rainless. In South Behar 2 stations reported rain, while 21 stations were rainless, and finally the whole of the stations in Chutia Nagpur from which reports have been received have been perfectly rainless.

Saturday, 29th September.—Pressure increased in all districts, though by somewhat irregular amounts. Pressure had become very uniform in all districts, and on the whole was slightly above the normal, the excess amounts ranging from nearly 0·04" in Orissa to 0·01" in Behar. Temperature had risen in Behar, and had fallen at most of the stations in Orissa and South-West Bengal. It was distinctly above the normal in South Behar and Chutia Nagpur by an average of 2°, and was almost equally below the normal in Orissa, South-West and East Bengal. Winds continued light and irregular in most districts. In South Behar and Chutia Nagpur westerly winds were a prominent feature, though the velocities were small. In Orissa and South-West Bengal, winds were very largely below their normal strength. Humidity continued high in all districts except South Behar and Chutia Nagpore. Cloud proportion was high in Orissa, East, and South-West Bengal, but in South Behar and Chutia Nagpore an almost cloudless sky was reported. Chutia Nagpore and South Behar were to-day practically rainless; a few very light showers fell in North Bengal, North Behar, and Orissa, while rain, light to moderate in amount, was fairly general in East and South-West Bengal. The following were the largest amounts recorded:—Chandpore 3·25 inches, Bishenpore 2·38 inches, Alipore Jajl 2·14 inches, Khoolna 1·68 inches, Magoor 1·52 inches, False Point 1·31 inches, Madaripore 1·17 inches, and Bongong 1·05 inches.

Sunday, 30th September.—Pressure continued to increase at almost all stations, though there were some slight local falls in North Bengal. Pressure was very considerably above the normal in all districts, the excess pressure averaging about 0·06", though the excess was smallest at Calcutta, where it equalled to 0·03", and largest at Durbhunga, where it was 0·1". Temperature increased slightly in most divisions. It was considerably below the normal in Orissa, South-West and East Bengal, the defect averaging about 2·5°; but it was distinctly above the average in Behar. Light irregular winds prevailed in all districts. The wind velocity in Orissa and South-West Bengal was particularly small, and considerably below the normal for the end of September. Humidity had increased in all districts, and was particularly small in South Behar. The amount of cloud had also diminished rapidly, and in South Behar and Chutia Nagpore the sky was cloudless. Rainfall was almost entirely absent from the whole Province; the only districts which reported at all general rain were the Julpigoree, Cooch Behar, and Darjeeling districts in North Bengal, and the Backergunge district in East Bengal. Only one heavy shower (4·11 inches) was reported from Buxa, while the following stations received amounts varying from half an inch to one inch:—Mickligunge, Nya Doomka, Moheshreka, and Pooree.

Monday, 1st October.—Pressure had decreased slowly at almost all stations. The decrease did not average more than from one to two hundredths of an inch, and the distribution of pressure was scarcely changed. Pressure continued very high, and was above the normal by amounts ranging from 0·03" at False Point to 0·12" at Durbhunga. Temperature had scarcely changed in North Bengal, Behar, and Chutia Nagpore, but had risen in South-West and East Bengal, and particularly in Orissa. Temperature was above the normal by from 1° to 2° in Behar and Chutia Nagpore, and equally below it in East and South-West Bengal. Light and variable winds prevailed in all districts. In Orissa and South-West Bengal they showed a well developed northerly element, but this feature was absent in South Behar and Chutia Nagpore, where the winds were still southerly. Wind velocity was particularly small over the whole Province. Humidity and cloud had generally diminished over the whole reporting area, and both these elements were comparatively low for the season. With the

exception of a few local showers, which fell in South-West, East, and North Bengal, the whole Province was rainless. The local showers reported were Khatra, 1.50 inches; Culna, 0.79 inch; and Darjeeling, 0.64 inch.

Tuesday, 2nd October.—The changes of pressure were small and somewhat irregular. In North and East Bengal pressure appeared to be increasing, while in the southern and western divisions the barometer had fallen slightly. Pressure continued rather uniform over the whole reporting area, and was considerably above the normal; the excess ranging from 0.1" at Durbhunga to 0.04" in Orissa. Temperature had risen at almost all stations, and was decidedly above the average in Chutia Nagpore, North and South Behar, South-West Bengal, and probably North Bengal. Temperature was about normal in East Bengal, and was below the normal in Orissa. Light and somewhat irregular winds prevailed in all districts. There was a strong northerly element in the winds in Chutia Nagpur and Orissa, while at isolated stations in all other divisions, except South Behar, northerly winds were also reported. Wind velocities were particularly small, the average air motion per hour over the whole Province not being much more than two miles. Humidity and cloud proportion continued comparatively small in all districts. In South Behar and Chutia Nagpure the sky was cloudless at almost all stations. A few very light local showers of rain fell in East Bengal and at Saugor Island, but the rest of the Province was rainless. With the exception of a heavy shower (1.45 inches) at Rangamati, the rainfall at the four or five stations in East Bengal did not average more than three or four tenths of an inch.

Wednesday, 3rd October.—Pressure had increased somewhat rapidly in all districts, the increase being greatest in Orissa and in South Behar. Pressure continued very equal over the whole reporting area, and was largely above the normal for the day, the excess pressure ranging from 0.07" at False Point to nearly 0.13" at Durbhunga. Temperature continued to rise slowly at many reporting stations, though at an almost equal number there had been no change. Temperature was above the normal in all divisions. It was on the average over the whole Province about 1° above the normal, but in Chutia Nagpur and North Bengal it was between 2° and 3° above the normal. Winds were light and somewhat irregular. The strong northerly element in the wind directions still continued in Orissa, South-West Bengal, and North Bengal; but southerly winds prevailed in Behar. Wind velocities were, however, in all cases very small. Humidity and cloud proportion remained comparatively small in all divisions. Behar and Chutia Nagpur reported practically cloudless sky. With the exception of a few drops of rain, which fell at Chittagong and at Motiharee, and of a shower at Rangamati, the whole Province was rainless.

Thursday, 4th October.—The changes of pressure were small only. Over the greater part of the reporting area, pressure had diminished, but at the southern stations in Orissa, it had increased. The changes were too small to affect the distribution of pressure to any material extent, and pressure still remained very uniform over the whole Province. Pressure was much above the normal by amounts ranging from 0.06" in South-West Bengal to 0.10" at Durbhunga. The changes of temperature were small and variable. Temperature was considerably above the normal, the average excess being about 2°. Light and very variable winds prevailed in all divisions. Wind velocities did not average more than two miles an hour over the whole Province. Humidity remained moderate in all districts. The proportion of cloud was also small, particularly in Behar and Chutia Nagpur. No rain fell to-day, except at one or two stations in North Bengal and in East Bengal, the amounts, however, even at those stations which received rain, did not exceed one or two tenths of an inch.

Friday, 5th October.—Pressure had decreased somewhat rapidly at most reporting stations. The average decrease was between 0.06" and 0.07", and it had the effect of reducing pressure rather below the normal at almost all stations. Pressure was 0.02" below the normal at most stations in South-West and East Bengal, while it was practically normal in Chutia Nagpur and Orissa. Temperature had increased in Orissa, South-West, and East Bengal, and at almost all stations in North Bengal and Chutia Nagpur; but in Behar at most stations temperature was falling. Temperature was above the normal of the day, particularly in South-West Bengal, Orissa, and East Bengal, where the excess averaged between 1° and 2°. Winds continued light and irregular over the whole Province, though wind velocities had slightly increased at some of the southern reporting stations. Humidity was very low in Chutia Nagpur and Behar. It was also comparatively low in most other divisions. Cloud proportion had again become smaller, and the sky was almost cloudless in Chutia Nagpur, Behar, and North Bengal, while it was slightly clouded only in East and South-West Bengal and Orissa. The whole Province was practically rainless, the only showers of importance being reported from Julpigoree, where 0.64 inch fell, and from Buxa where 1.39 inches fell.

METEOROLOGICAL OFFICE, BENGAL,

ALEXANDER PEDLER, F.C.S.,

The 9th October 1883.

Offg. Meteorological Reporter to the Govt. of Bengal.

MEMORANDA.

THE subjoined table exhibits the mortuary statistics of the districts in Bengal, excluding Burdwan, from which no return was received up to date, for the month of August 1883. The leading features disclosed by it are—

(1.) That the deaths of 97,599 persons were recorded in these districts among their population of 64,771,103, representing a death-rate of 18 per 1,000, against 16.44 per 1,000 during the preceding month, and 18.48 per 1,000 during the corresponding month of 1882.

(2.) That the highest death-rates were returned from the following districts:—

	Ratio per mille.			Ratio per mille.
Gya	44.28	Shahabad	...	29.28
Birbhum	35.16	Hazaribagh	...	25.68
Patna	30.96	Rajshahye	...	25.20

(3.) That the several death-causes presented the rates of mortality exhibited below:—

	Ratio per mille during the months of—	
	August 1883.	July 1883.
Cholera	1.20	1.56
Small-pox	.08	.12
Fever	12.60	11.04
Bowel-complaints	.96	.84
Injury	.60	.60
Other causes	2.40	2.04

indicating that cholera and small-pox were less fatal than in the preceding month, and that fever, bowel-complaints, and the diseases returned under the head of "Other causes" furnished higher death-rates.

(4.) That of the above-named diseases, cholera, small-pox and fever were notably fatal in the following districts:—

Cholera.	Ratio per mille.	Small-pox.	Fever.
		Ratio per mille.	Ratio per mille.
Gya	13.92	Poori	Birbhum
Shahabad	6.48	1.08	30.24
Julpaiguri	3.84		Gya
Hazaribagh	2.88		Rajshahye
Patna	2.52		
Cuttack	2.52		
Monghyr	2.04		
Lohardugga	1.92		
Poori	1.80		
Mozafferpore	1.56		
Darjiling	1.20		

(5.) That the death-rates under the heads of *Sex*, *Class*, and *Age*, stood as follows:—

According to Sex.	According to Class.	According to Age.	
	Ratio per mille.	Ratio per mille.	
Males ...	19.68	Christians ...	8.88
Females ...	16.44	Hindus ...	19.20
		Mahomedans ...	15.60
		Budhists ...	14.88
		Other classes ...	19.32
		Under 1 year	106.32
		1 and under 5 years	21.84
		5 and under 10	10.92
		10 and under 15	9.96
		15 and under 20	12.72
		20 and under 30	12.48
		30 and under 40	13.32
		40 and under 50	17.40
		50 and under 60	24.24
		60 years and upwards	36.72

F. W. A. DEFABECX,

Offg. Sanitary Commissioner for Bengal.

The 8th October 1883.

Statement showing the Results of the Registration of Deaths in the Districts in Bengal for the month of August 1883.

DIVISIONS.	DISTRICTS.	POPULATION.			DEATHS FROM—			MORTALITY ACCORDING TO—			Sex.							
					Disease.			Ratio for 1,000 of Population per Annum.			Comparison with Previous Periods.							
		Males.	Females.	Total.	Cholera.	Small-pox.	Cholera.	All diseases.	Small-pox.	Cholera.	All diseases.	Injury.	Bowel-complaints.	Bowel-complaints.	Other diseases.	Other diseases.	Deaths among—	Ratio per 1,000 of Population per Annum.
Burdwan	507,186	1,661,755	1,661,755	1,661,755	1,661,755	1,661,755	1,661,755	1,661,755	1,661,755	1,661,755	1,661,755	1,661,755	1,661,755	1,661,755	110
Bankura	412,565	794,425	794,425	794,425	794,425	794,425	794,425	794,425	794,425	794,425	794,425	794,425	794,425	794,425	97
Birbhum	881,565	1,246,574	1,246,574	1,246,574	1,246,574	1,246,574	1,246,574	1,246,574	1,246,574	1,246,574	1,246,574	1,246,574	1,246,574	1,246,574	117
Midnapur	2,517,553	3,46,227	3,46,227	3,46,227	3,46,227	3,46,227	3,46,227	3,46,227	3,46,227	3,46,227	3,46,227	3,46,227	3,46,227	3,46,227	98
Hughli	814,586	177,589	177,589	177,589	177,589	177,589	177,589	177,589	177,589	177,589	177,589	177,589	177,589	177,589	110
Serampore	316,479	318,903	318,903	318,903	318,903	318,903	318,903	318,903	318,903	318,903	318,903	318,903	318,903	318,903	123
Howrah	1,975,459	1,860,850	1,860,850	1,860,850	1,860,850	1,860,850	1,860,850	1,860,850	1,860,850	1,860,850	1,860,850	1,860,850	1,860,850	1,860,850	124
24-Pargunnah	805,779	849,942	849,942	849,942	849,942	849,942	849,942	849,942	849,942	849,942	849,942	849,942	849,942	849,942	133
Nuttia	969,271	1,365,721	1,365,721	1,365,721	1,365,721	1,365,721	1,365,721	1,365,721	1,365,721	1,365,721	1,365,721	1,365,721	1,365,721	1,365,721	133
Jessore	586,483	640,307	640,307	640,307	640,307	640,307	640,307	640,307	640,307	640,307	640,307	640,307	640,307	640,307	118
Murshidabad	568,402	611,546	611,546	611,546	611,546	611,546	611,546	611,546	611,546	611,546	611,546	611,546	611,546	611,546	120
Khodma	782,298	782,054	782,054	782,054	782,054	782,054	782,054	782,054	782,054	782,054	782,054	782,054	782,054	782,054	129
Dinajpur	660,236	678,412	678,412	678,412	678,412	678,412	678,412	678,412	678,412	678,412	678,412	678,412	678,412	678,412	124
Ranipore	1,067,791	1,030,263	1,030,263	1,030,263	1,030,263	1,030,263	1,030,263	1,030,263	1,030,263	1,030,263	1,030,263	1,030,263	1,030,263	1,030,263	115
24-Pargunnah	372,677	361,681	361,681	361,681	361,681	361,681	361,681	361,681	361,681	361,681	361,681	361,681	361,681	361,681	133
RASHBART, AND COUCH BEHAR.	648,311	648,417	648,417	648,417	648,417	648,417	648,417	648,417	648,417	648,417	648,417	648,417	648,417	648,417	133
Darjiling	88,948	66,931	66,931	66,931	66,931	66,931	66,931	66,931	66,931	66,931	66,931	66,931	66,931	66,931	128
Darjeeling	305,655	276,007	276,007	276,007	276,007	276,007	276,007	276,007	276,007	276,007	276,007	276,007	276,007	276,007	128
Dacca	1,623,863	1,082,487	1,116,350	1,116,350	1,116,350	1,116,350	1,116,350	1,116,350	1,116,350	1,116,350	1,116,350	1,116,350	1,116,350	1,116,350	124
Faridnagar	805,989	825,745	825,745	825,745	825,745	825,745	825,745	825,745	825,745	825,745	825,745	825,745	825,745	825,745	133
Beckergunge	973,479	927,410	927,410	927,410	927,410	927,410	927,410	927,410	927,410	927,410	927,410	927,410	927,410	927,410	133
Wymensing	1,565,897	1,498,569	1,501,996	1,501,996	1,501,996	1,501,996	1,501,996	1,501,996	1,501,996	1,501,996	1,501,996	1,501,996	1,501,996	1,501,996	134
Tipperah	770,863	745,445	745,445	745,445	745,445	745,445	745,445	745,445	745,445	745,445	745,445	745,445	745,445	745,445	124
CHITTAGONG	531,649	600,692	1,132,347	1,132,347	1,132,347	1,132,347	1,132,347	1,132,347	1,132,347	1,132,347	1,132,347	1,132,347	1,132,347	1,132,347	127
Nonkballi	415,248	405,524	820,772	820,772	820,772	820,772	820,772	820,772	820,772	820,772	820,772	820,772	820,772	820,772	127
Gym	888,783	888,073	1,124,681	1,124,681	1,124,681	1,124,681	1,124,681	1,124,681	1,124,681	1,124,681	1,124,681	1,124,681	1,124,681	1,124,681	127
Shalnabad	1,043,441	1,081,941	1,132,347	1,132,347	1,132,347	1,132,347	1,132,347	1,132,347	1,132,347	1,132,347	1,132,347	1,132,347	1,132,347	1,132,347	126
Morupperpore	926,751	1,316,339	2,582,060	2,582,060	2,582,060	2,582,060	2,582,060	2,582,060	2,582,060	2,582,060	2,582,060	2,582,060	2,582,060	2,582,060	125
Durbulanga	1,295,788	1,287,656	1,628,582	1,628,582	1,628,582	1,628,582	1,628,582	1,628,582	1,628,582	1,628,582	1,628,582	1,628,582	1,628,582	1,628,582	125
Sarun	1,083,565	1,198,817	2,920,588	2,920,588	2,920,588	2,920,588	2,920,588	2,920,588	2,920,588	2,920,588	2,920,588	2,920,588	2,920,588	2,920,588	133
Chumpani	870,637	850,881	1,721,608	1,721,608	1,721,608	1,721,608	1,721,608	1,721,608	1,721,608	1,721,608	1,721,608	1,721,608	1,721,608	1,721,608	133
Monavar	969,124	1,000,650	1,969,774	1,969,774	1,969,774	1,969,774	1,969,774	1,969,774	1,969,774	1,969,774	1,969,774	1,969,774	1,969,774	1,969,774	124
Rhegulpore	973,119	917,630	1,000,158	1,000,158	1,000,158	1,000,158	1,000,158	1,000,158	1,000,158	1,000,158	1,000,158	1,000,158	1,000,158	1,000,158	122
Purneah	537,080	1,84,697	1,84,697	1,84,697	1,84,697	1,84,697	1,84,697	1,84,697	1,84,697	1,84,697	1,84,697	1,84,697	1,84,697	1,84,697	122
Maldah	544,908	303,450	710,448	710,448	710,448	710,448	710,448	710,448	710,448	710,448	710,448	710,448	710,448	710,448	117
Sentinal Pergunnah	735,330	1,164,743	2,00,244	2,00,244	2,00,244	2,00,244	2,00,244	2,00,244	2,00,244	2,00,244	2,00,244	2,00,244	2,00,244	2,00,244	117
Cuttack	877,702	917,363	1,709,065	1,709,065	1,709,065	1,709,065	1,709,065	1,709,065	1,709,065	1,709,065	1,709,065	1,709,065	1,709,065	1,709,065	116
Puri	446,609	441,878	888,487	888,487	888,487	888,48									

MORTALITY ACCORDING TO—

MEMORANDA.

(1.) During the week ending 22nd September 1883, births and deaths were recorded in the first class Municipalities in Bengal at the rates respectively of 25.3 and 27.2 per 1,000 of their population, against 23.3 and 25.4 per 1,000 during the preceding week ending 15th September, indicating a fair improvement in the registration of both events.

(2.) The Municipalities which exhibit the highest results in birth and death registration are—

	<i>Births.</i>	Ratio per mille.	<i>Deaths.</i>	Ratio per mille.
Bhagulpore	..	44.3	Gya	.. 58.1
Patna	..	42.5	Burdwan	.. 44.2
Arrah	..	41.8	Bhagulpore	.. 43.4
Gya	..	38.2	Santipore	.. 38.7
			Uterpara	.. 37.7
			Comillah	.. 30.8
			Patna	.. 30.5
			Suburbs of Calcutta	.. 28.3
			Poori	.. 27.9
			Arrah	.. 27.5
			Monghyr	.. 27.1
			Chuprah	.. 25.4

(3.) Referring to the principal death-causes, while small-pox was not fatal anywhere, cholera is reported to have claimed 2.1 per 1,000 of the population of these Municipalities, against the same proportion during the preceding week; fever 12.7 against 12.4 per 1,000; bowel-complaints 4.3 against 3.6 per 1,000; injury .6 against .5 per 1,000; and "other causes" 7.5 against 6.7 per 1,000.

(4.) Of the above-named diseases, cholera, fever, bowel-complaints, and the diseases classed under the head of "Other causes" were noticeably fatal in the following Municipalities:—

<i>Cholera.</i>	<i>Fever.</i>	<i>Bowel-complaints.</i>	<i>Other Causes.</i>
Ratio per mille.	Ratio per mille.	Ratio per mille.	Ratio per mille.
Uterpara	18.9	Santipore	32.3
Gya	15.7	Burdwan	29.0
Bhagulpore	10.9	Comillah	23.1
Burdwan	3.0		
		Monghyr	10.8
		Bhagulpore	9.0
		Poori	8.6
		Gya	8.2
		Poori	17.1
		Dacca	16.2
		Gya	13.0
		Patna	11.7

(5.) The mortality of the week distributed under the heads of *Sex*, *Class* and *Age* stands as follows:—

According to Sex.

	Ratio per mille.
Males	.. 27.2
Females	.. 27.2

According to Class.

	Ratio per mille.
Christians	.. 9.4
Hindus	.. 28.5
Mahomedans	.. 24.8

According to Age.

Under 1 year	.. 251.1
1 and under 5 years	.. 33.5
5 and under 10 "	.. 15.8
10 and under 15 "	.. 14.4
15 and under 20 "	.. 20.9
20 and under 30 "	.. 16.8
30 and under 40 "	.. 21.2
40 and under 50 "	.. 23.1
50 and under 60 "	.. 20.0
60 years and upwards	.. 48.0

F. W. A. DEFABECK,

Officiating Sanitary Commissioner for Bengal.

The 8th October 1883.

MORTALITY ACCORDING TO—

Class.

Age.

DISTRICTS.	NAMES OF MUNICIPALITIES.	DEATHS AMONG—	RATIO PER 1,000 OF POPULATION PER ANNUM.											
			Christians.	Hindus.	Brahmines.	Brahmo-Sanscrits.	Hindoos.	Christians.	Hindoos.	Brahmo-Sanscrits.	Hindoos.	Christians.	Hindoos.	Christians.
Burdwan	Burdwan	19	10	...	...	...	...	6	1	...	...	3	1	2
Midnapur	Midnapur	9	...	...	...	...	...	1	1	1	2	...	...	2
Hughli	Hughli and Chinsurah	16	3	...	...	...	...	2	5	...	...	1	110.3	97.6
Serampore	Serampore	6	...	...	...	...	...	1	...	...	...	1	1	73.2
Ularpata	Ularpata	4	...	...	...	...	...	39.1	...	...	...	3	1	1
Howrah	Howrah	1	30	7	...	...	...	27.0	19.1	16.7	...	7	5	3
24-Parganas	Suburbs of Calcutta	1	91	45	...	...	...	12.8	31.6	29.2	...	5	27	23
Kishnagar	Kishnagar	11	6	...	...	...	...	17.7	36.0	36.0	...	3	6	9
Ranaghat	Ranaghat	2	1	...	...	...	...	14.2	38.1	38.1	...	2	3	1
Santipore	Santipore	18	6	...	...	...	...	38.4	45.1	45.1	...	1	3	4
Jessore	Jessore	2	1	...	...	...	...	23.1	13.6	13.6	...	1	1	1
Rai Bahadur	Rai Bahadur	7	...	...	...	...	...	...	...	...	...	2	1	1
Darjiling	Darjiling	15	...	...	...	...	...	33.2	19.8	19.8	...	3	3	3
Dacca	Dacca	18	...	...	...	...	...	37.1	...	...	...	1	6	6
Narsinganj	Narsinganj	2	...	...	...	...	...	16.9	...	...	...	1	1	1
Chittagong	Chittagong	9	4	...	...	...	...	17.9	13.6	13.6	...	1	1	2
Tipperah	Comilla	4	...	...	...	...	...	35.0	28.1	28.1	...	1	4	...
Patna	Patna City	76	18	...	...	...	...	33.2	22.9	22.9	...	22	13	6
Gya	Gya	73	12	...	...	...	...	63.2	38.8	38.8	...	6	11	8
Shahabad	Arrah	15	8	...	...	...	...	25.2	33.5	33.5	...	6	6	2
Monufiapore	Monufiapore	7	4	...	...	...	...	23.1	16.7	16.7	...	1	1	1
Durbanges	Durbanges	19	5	...	...	...	...	20.6	14.8	14.8	...	4	5	3
Chuprah	Chuprah	16	10	...	...	...	...	30.2	43.3	43.3	...	5	4	...
Bhagulpore	Bhagulpore	37	11	...	...	...	...	48.4	33.2	33.2	...	13	4	2
Monghyr	Monghyr	24	6	...	...	...	...	27.9	24.8	24.8	...	3	2	6
Purneah	Purneah	1	2	...	...	...	...	57	18.4	18.4	...	1	1	1
Poori	Poori	13	...	...	...	...	...	28.1	...	...	...	7	3	...
		9	507	186	...	...	...	38.4	28.5	28.5	...	144	33.5	158
		2	507	186	...	...	...	38.4	28.5	28.5	...	2511	33.5	75
		9	40	32	32	32	32	40	32	32	32	72	37	72
		144	33.5	158	158	158	158	30.9	16.8	16.8	16.8	212	251	200
		2511	33.5	75	75	75	75	251	251	251	251	251	251	251
		9	507	186	...	...	...	38.4	28.5	28.5	...	1116	707	459
		2	507	186	...	...	...	38.4	28.5	28.5	...	1116	707	459
		9	40	32	32	32	32	40	32	32	32	72	37	72
		144	33.5	158	158	158	158	30.9	16.8	16.8	16.8	212	251	200
		2511	33.5	75	75	75	75	251	251	251	251	251	251	251
		9	507	186	...	...	...	38.4	28.5	28.5	...	1116	707	459

TOTAL

OFFICE OF SANITARY COMMISSIONER FOR BENGAL,

F. W. A. deFABECK,

Abstract of the results of Meteorological Observations taken at the Alipore Observatory in the month of September 1883.

			Inches.	Date.	hour.
The mean pressure of the month	...	...	29.668		
The average pressure of 24 years	...	...	29.682		
The highest pressure during the month	...	...	29.880	30th	10h.
The lowest pressure during the month	...	...	29.447	7th	16h.
The range of pressure during the month	...	...	0.443		
			Hours.		
The total number of hours of bright sunshine during the month	169.1				
			°		
The mean temperature during the month	...	...	82.7		
The average temperature of 24 years	...	...	83.3		
The highest temperature during the month	...	...	90.7	24th	
The lowest temperature during the month	...	...	75.2	30th	
The range of temperature during the month	...	...	15.5		
The mean daily range of temperature during the month	...	...	9.4		
The greatest range of temperature in one day during the month	...	...	12.4	30th	
			Per cent.		
The mean humidity during the month	...	...	87		
The average humidity of 24 years	...	...	85		
			Inches.		
The mean vapour tension during the month	...	...	0.968		
The average vapour tension of 24 years	...	...	0.987		
The mean cloud proportion of the month	...	...	8.17		
The total rainfall of the month	...	...	6.96		
The total rainfall of the month indicated by a Beckley's self-registering rain-gauge (mouth of the gauge 50.5 feet high)	...	...	6.42		
The average fall of 24 years	...	...	10.18		
The greatest fall in 24 hours	...	...	3.07	29h	
			Days.		
The number of rainy days in the month	...	...	20		
The average number of rainy days of 24 years	...	...	21		
			°		
The mean maximum equilibrium temperature of solar radiation of the month	...	...	149.1		
The mean difference of sun and air temperatures	...	...	61.2		
The greatest sun temperature	...	...	159.3	18th	
The greatest excess of sun over air temperature	...	...	72.1	19h	
The mean temperature of nocturnal radiation thermometer on woollen cloth	...	...	74.8		
The mean depression of nocturnal radiation thermometer below the minimum of air	...	...	3.6		
The greatest depression of nocturnal radiation thermometer below the minimum of air	...	...	5.4	18th	
			Miles.		
The mean movement of the wind per day	...	...	96.5		
The greatest movement of the wind in one day	...	...	282.0	7th	
The greatest movement of the wind in one hour	...	...	17.0	6th, 7th	Noon to 1 P.M., 9 to 10 A.M., and noon to 1 P.M.
The number of hours under each of the 8 points	...				

N. 5, NE. 7, E. 69, SE. 135, S. 272, SW. 157, W. 32, NW. 4, Calm 39.

The results of observations at the Alipore Observatory are not rigorously comparable with the registers of past years (at the Park-street Observatory). The barometer is about 3 feet higher at Alipore, and, other things being equal, reads therefore .003 lower. The diurnal range of temperature is also greater at Alipore, and the mean temperature apparently equal; and finally, the thermometer, which has furnished the record of temperature at the Surveyor-General's Office during the last 20 years and upwards, is found to read 0.6° higher than the Kew standard thermometer, which is the standard of reference at the present Observatory.

METEOROLOGICAL OFFICE, INDIA,
The 8th October 1883.

ALEXANDER PEDLER,
For Meteorological Reporter to the Govt. of India.

Results of the Meteorological Observations taken at the Alipore Observatory from 30th September to 6th October 1883.

Month	Date	Maximum in sun.	Number of hours of bright sunshine.	Mean pressure barometer at 32° Fahr.	TEMPERATURE.				HYGROMETRY.				WIND.		Miles recorded	Rain.	WEATHER.
					Mean	Maximum.	Range.	Minimum.	Mean wet bulb.	Vapour tension.	Dew point	Humidity	Prevailing direction				
1883.		⊕	Inches.	⊕	(1)	(1)	(1)	(1)	⊕	Inches	⊕	%			Inches		
Sept.	30th	151.5	8.5	29.821	80.9	87.6	12.4	75.2	77.7	0.912	76.4	88	S, ENE and SE by E	48	Nil.	Partially cloudy, o =.	
Oct.	1st	148.2	9.8	29.84	82.2	88.1	11.4	76.7	78.2	0.913	76.5	84	SE by E, ENE and S	69	"	Partially cloudy, o =.	
"	2nd	148.5	7.8	29.801	82.6	88.6	11.4	77.2	78.6	0.920	77.0	84	S and ESE	43	"	Partially cloudy, o =.	
"	3rd	152.5	4.5	29.836	83.1	89.5	11.7	77.8	79.6	0.966	78.2	86	SSE, S by E, and variable.	39	"	Partially cloudy, g =.	
"	4th	147.0	10.2	29.824	84.1	89.7	12.0	77.7	80.4	0.983	78.7	85	S and WSW	74	"	Chiefly clear.	
"	5th	150.5	10.8	29.759	84.5	91.6	13.4	78.2	80.8	0.995	79.1	85	WSW and W by N	68	"	Chiefly clear.	
"	6th	147.9	11.2	29.720	84.4	92.4	13.2	79.2	79.1	0.926	78.9	79	W and WNW	68	"	Chiefly clear.	

The mean pressure of the seven days	... Inches.	29.795
The average pressure of the corresponding period for 24 years, S. G.'s Office	... Inches.	29.749
The total number of hours of bright sunshine of the seven days	... Hours.	62.3
The mean temperature of the seven days	... °	83.1
The average temperature of the corresponding period for 24 years, S. G.'s Office	... °	83.3
The extreme variation of temperature during the seven days	... °	17.2
The maximum temperature during the seven days	... °	92.4
The highest velocity of the wind in one hour during the seven days	... Miles.	10
The highest pressure of the wind on one square foot during the seven days	... lbs.	Not measurable.
The mean relative humidity during the seven days	... %	84
The average relative humidity of the corresponding period for 24 years, S. G.'s Office	... %	83
The total fall of rain from 30th September to 6th October 1883	... Inches.	Nil.
The average fall of the corresponding period for 24 years, S. G.'s Office	... Inches.	1.80
The total fall from 1st January to 6th October 1883	... Inches.	49.29
The average fall of the corresponding period for 24 years, S. G.'s Office	... Inches.	60.27

The mean pressure, temperature, &c., are deduced from the traces of the Barograph and Thermograph.

The maximum and minimum temperatures are obtained from self-registering thermometers. All the thermometers are verified, and the readings have been corrected to a standard constructed and verified at the Kew Observatory. They are exposed under a thatched shed open at the sides, and are suspended four feet above the ground.

The barometer readings are corrected approximately to those of the standard Newmann's No 86 formerly at the Surveyor-General's Office.

The hygrometric elements are obtained from Tables III, IV and V of the official tables computed in the Meteorological office, and based on Regnault's modifications of August's formula.

The direction of the movement of the wind are taken from the trace of a Beckley's anemograph.

The mouth of the rain-gauge is one foot above the ground.

overcast, g gloomy, = foggy.

ALEXANDER PEDLER,

METEOROLOGICAL OFFICE, INDIA,
The 8th October 1883.

For Meteorological Reporter to the Government of India.

Abstract of the results of the Thermometric Observations taken at the Meteorological Office, Chowringhee, in the month of September 1883.

	Θ	Date.
The mean temperature during the month	... 82.5	
The highest temperature during the month	... 92.5	23rd
The lowest temperature during the month	... 75.8	30th
The range of temperature during the month	... 16.7	
The mean daily range of temperature during the month	... 10.1	
The greatest range of temperature in one day during the month	... 12.9	30th
°		
The mean humidity during the month	... 88	
Inches.		
The mean vapour tension during the month	... .976	
The total rainfall of the month	... 5.73	
The greatest fall in 24 hours	... 1.87	29th
Days.		
The number of rainy days in the month	... 17	

ALEXANDER PEDLER,
For Meteorological Reporter to the Govt. of India.

METEORLOGICAL OFFICE, INDIA,
The 8th October 1883.

Results of the Thermometrical Observations taken at the Meteorological Office, Chowringhee, from 30th September to 6th October 1883.

MONTH.	Date.	TEMPERATURE.				HYGROMETRY.				Rain.
		Mean.	Maximum.	Range.	Minimum.	Mean wet bulb.	Vapour tension.	Dew point.	Humidity.	
1883.		°	°	°	°	°	Inches.	°	%	Inches.
September	30th	81.1	88.7	12.9	75.8	77.8	.910	76.4	86	0.01
October	1st	82.9	89.6	12.3	77.3	78.5	.916	76.6	81	Nil
"	2nd	83.1	90.3	12.0	78.3	79.0	.937	77.3	83	"
"	3rd	83.8	90.8	11.4	79.4	80.8	1.012	79.6	87	"
"	4th	84.8	91.8	12.5	79.3	80.9	1.003	79.4	83	"
"	5th	85.7	93.3	13.9	79.4	80.5	.972	78.4	79	"
"	6th	85.7	93.0	13.1	79.9	?	?	?	?	"

The mean temperature of the seven days	... 83.9
The extreme variation of temperature during the seven days	... 17.5
The maximum temperature during the seven days	... 93.3
The mean relative humidity during the six days	... 83

The total fall of rain from 30th September to 6th October 1883 ... 0.01

The mean temperature and humidity are obtained by applying to the mean of the 10h, 16h, and minimum readings a correction dependent on the range, and derived from the hourly observations at the Surveyor-General's Office, Chowringhee, in past years.

METEORLOGICAL OFFICE, INDIA,
The 8th October 1883. ALEXANDER PEDLER,
For Meteorological Reporter to the Govt. of India.

Report on Traffic of the East Indian Railway during four weeks ending
25th August 1883.

THE audited figures for the period are as follows:—

	Coaching.		Goods.		Total.		Materials carried on Revenue account, in- cluding maintenance.	
	No.	Rs.	Mds.	Rs.	Rs.	Mds.	Rs.	Rs.
1883	743,204	7,67,749	70,32,879	25,51,037	82,98,786	23,19,681	1,15,032	
1882	658,484	8,54,561	59,58,339	18,93,240	77,47,801	22,45,557	1,04,044	
Increase	84,720	.....	10,74,640	6,37,797	5,50,985	2,74,124	10,988	
Decrease	.....	86,812	.....	.....	.....	.....	.....

Increase—

12 per cent in passengers carried.

Decrease—

10 per cent in coaching earnings.

Increase—

18 per cent in weight of goods.

33 " in earnings from goods.

20 " in total earnings.

COACHING.

The following is a statement of audited coaching traffic during four weeks ending 25th August 1883, as compared with 1882:—

DESCRIPTIONS.	1883.		1882.		Increase.		Decrease.	
	No.	Rs.	No.	Rs.	No.	Rs.	No.	Rs.
First class	2,947	21,245	2,543	20,855	404	390	.....	7,835
	734	766	2,252	8,601	.....	.....	179	7,835
Second class	7,314	23,806	7,436	21,994	.....	1,812	141	.....
	499	1,777	1,246	8,896	.....	.....	747	7,119
Intermediate class	7,813	25,583	8,702	30,890	.....	1,812	889	7,119
	29,685	24,743	31,330	25,369	.....	.....	1,644	566
Third class	701,896	6,23,704	605,757	5,21,381	96,139	1,02,323	.....	37,223
	788	3,090	9,896	40,813	.....	.....	9,108	37,223
Luggage	13,594	.....	12,036	.....	658	.....	.....	28,054
	557	.....	25,611	.....	.....	.....	.....	28,054
Horses, carriages, dogs	14,151	.....	41,547	.....	658	.....	.....	28,054
	.....	.....	.....	.....	.....	.....	.....	28,054
Parcels	8,951	.....	10,529	.....	.....	.....	1,578	.....
	409	.....	1,08,454	.....	.....	.....	1,08,045	.....
Other traffic	9,360	.....	1,18,983	.....	.....	.....	1,09,623	.....
	.....	.....	.....	.....	.....	.....	.....	1,09,623
GRAND TOTAL		7,43,204	7,67,749	658,484	8,54,561	96,543	1,08,104	1,94,916
Net		.....	.....	.....	.....	84,720	.....	86,812

The principal features are an increase in 3rd class ordinary traffic, both in numbers and receipts, due to pilgrims, melas, and fairs, and a decrease in military traffic of all descriptions owing to the Egyptian Expedition in August 1882.

The details at stations follow:—

Coaching Traffic during the four weeks ending 25th August 1883.

STATIONS.	No.	Rs.	REMARKS.
INCREASE.			
Howrah	8,350	.....	Mecca pilgrims and 3rd class passengers.
Bally	860	180	3rd class passengers.
Konnagar	430	170	Ditto to Bankipore and Benares.
Serampore	1,640	320	Ditto to Bankipore and Patna, and Government passengers.
Seoraphuli	1,170	780	3rd class passengers.
Baidyabati	940	.....	Ditto.
Bhadrakswar	840	10	Ditto to up country stations.
Chandernagore	1,180	550	3rd class passengers.
Hooghly	7,70	1,080	Road cess collection at Hooghly court.
Magra	1,620	1,190	Coolies returning from Assam, and booked to Raneegunge.
Khanian	560	20	3rd class passengers to Hooghly.
Pundooah	820	.....	Ditto to up country.
Boinches	660	160	Ditto to Howrah, Hooghly, Burdwan, and Allahabad.
Burdwan	1,370	1,270	Jhulan jatra festival, and foreign line passengers to Azimgunge, Gya, and Bombay.

STATIONS.	No.	Rs.	REMARKS.
INCREASE—continued.			
Gushkara	570	270	3rd class passengers.
Sainthia	430	.....	Ditto to Bankipore for Gya pilgrimage.
Chatt'a	510	100	Ditto to Rampore Haut, Nalhati, and Muraroi.
Rajmehal	450	1,220	Ditto and parcel's traffic.
Bhagalpur	1,420	1,190	Passengers returning to Howrah, Ghidhaur, and Jamooe after visiting His Honor the Lieutenant-Governor.
Raneeunge	750	1,510	Passengers returning from Jugernath pilgrimage.
Madhupur	50	120	3rd class passengers to Baidyanath, Giridih, and Howrah.
Luckeeserai	280	1,030	Ditto to Howrah, Jamalpur, Monghyr, and Jamooi.
Burhee	670	370	3rd class passengers.
Mokameh	2,510	2,840	Ditto to Howrah and Tirhoot State Railway.
Ditto Ghāt	1,540	2,130	Opening of station.
Kushrupur	4,900	1,500	Ditto.
Patna	1,810	2,300	Pilgrims to Baidyanath and Benares, and coolies to Howrah.
Balipur	2,870	4,200	Gya pilgrims.
Dinapore	490	1,170	3rd class passengers to Howrah and Benaras.
Bihta	890	890	Ditto ditto.
Koelwar	70	1,120	3rd class passengers.
Arrah	1,760	2,340	Ditto to Howrah and Hooghly.
Behea	850	2,320	Ditto to Howrah, Arrah, Dumraon, Raghunathpur; and horses.
Raghunathpur	800	2,330	Ditto to Howrah, Hooghly, and Baidyanath.
Dumraon	1,160	3,280	3rd class passengers.
Buxar	1,260	2,180	Coolies to Howrah.
Chausa	680	1,210	3rd class passengers to Howrah and Raneeunge.
Guhmar	370	1,040	3rd class passengers.
Zumania	800	1,020	Ditto to Howrah and Arrah.
Moghalserai	1,600	.....	3rd class passengers to Howrah, Baidyanath, and Benares.
Benares	2,750	8,150	Mela at Mirzapur, and 3rd class passengers to Howrah.
Abrawra Road	690	220	3rd class passengers.
Chunar	1,870	660	Ditto to Benares, Mirzapur, and Allahabad.
Fahara	680	50	Ditto to Mirzapur.
Mirzapur	3,280	3,380	Kajru mela, and passengers returning from Brindachal mela.
Gaipura	710	170	Ditto ditto ditto.
Sarsa Road	540	50	3rd class passengers.
Naini	610	1,600	Ditto to Gya and Benares.
S tna	510	660	Ditto and 1st class passengers.
Jubbulpore	640	1,900	Pilgrims to Allahabad, and Government passengers and luggage to Howrah.
Manauri	520	200	sreekootee mela.
Bharwari	750	340	Ditto fair at Allahabad.
Sirathu	820	960	3rd class passengers.
Khaga	740	680	Ditto.
Cawnpore	3,640	4,000	Muttra pilgrims; special train for Moharajah of Sindia and horses to Howrah, Delhi, and Agra.
Kurbigan	660	350	3rd class passengers.
Etawah	1,300	630	Ditto.
Shikohabad	1,860	820	Muttra fair.
Tundla	1,090	240	3rd class passengers.
Agra Fort	1,210	.....	Special train to Cawnpore for His Honor the Moharajah of Sindia.
Hathras Road	930	960	Marriage ceremony, and passengers returning from Muttra mela.
Aligarh	1,580	900	Jumnostomee fair at Muttra.
Khurja	400	240	3rd class passengers.
Ghaziabad	390	2,790	Ditto to Hooghly and Allahabad, and Muttra fair.
Delhi Shadara	1,200	150	Teej fair.
Total Increase	86,730	74,000	
DECREASE.			
Howrah	.....	2,260	Extra troops train to Allahabad, and parcel's to Bombay for the Egyptian Expedition.
Baidyanati	.....	40	3rd class passengers.
Sainthia	.....	40	Ditto.
Barh	2,180	1,590	Opening of Mokameh Ghat station.
Huktiarpur	6,200	1,360	Kajir mela.
Allahabad	50	32,870	Troops traffic for Egyptian Expedition.
Agra Fort	.....	120	3rd class passengers.
Delhi	3,150	640	Ditto.
Moghalserai	.....	200	Ditto.
Vid Cawnpore	1,910	29,290	Extra troop trains for the Egyptian Expedition.
Vid Ghaziabad	2,860	87,840	Ditto ditto.
Total Decrease	16,350	1,56,250	
Net	70,380	82,160	

GOODS.

Deducting construction materials, there is an increase in ordinary staples of 33 per cent in weight and 33 per cent in receipts, which is mainly derived from wheat, seeds, salt, and foreign railway materials.

Fluctuations in principal staples are:—

INCREASES.

		Mds.	Rs.
Rice	...	20,130	20,120
Wheat	...	11,24,630	4,09,480
Other grains	...	44,260	18,300
Gunny	...	27,720	20,650
Piece-goods	...	20,000	18,220
Railway material—Foreign	...	1,72,780	1,33,990
Salt	...	1,05,110	21,070
Seeds	...	1,10,260	10,900
Sugar	...	25,010	6,600
Tobacco	...	11,380	9,330

DECREASES.

		Mds.	Rs.
Coal, downwards	...	81,100	14,390
Ordnance stores	...	.....	11,350
Railway material—Construction account	...	5,72,850	7,940
Saltpetre	...	9,700	4,520
Stone	...	12,110	2,110

REMARKS.

Rice.—The traffic for the first two weeks of the period shows a falling off.

Wheat.—The Home and Continental demands continued during August.

Other grains.—Better demand up-country. Despatches principally from stations on the Jubbulpore line.

Gunny.—The increase in the export grain traffic will explain this.

Piece-goods.—There was a falling off in the previous month, which seems to have been made up in August.

Salt.—The increases are generally at all sources.

Railway materials, foreign.—Bridge and other iron-work to Benares, and permanent-way and other railway materials for the several lines under construction made up this increase.

Seeds.—The increase is chiefly in oil-seeds.

Sugar.—The increase in despatches from Cawnpore *via* Cawnpore and *via* Aligarh, from Oudh and Rohilkund to Agra, for the Rajputna demand.

Tobacco.—There appears to have been a better demand than in previous months.

DECREASES.

Coal, downwards.—This is unusual, but is probably owing to stocks having been largely augmented in previous months.

Government Ordnance Stores.—The occurrence of the Egyptian Campaign in 1882 will explain the falling off from that year's figures.

Railway material—Construction account.—The completion of the double line above Buxar, which was under construction in 1882, stopped despatches of rails and other materials.

Salt-petre.—This falling off is owing to the demand for export having slackened.

Stone.—Decrease in rubble stone.

The train mileage for the period has been, excluding maintenance and locomotive coal train mileage,—

				Coaching.		Goods.		Total.	
				Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1883	2,42,915	5,26,047	7,68,962		
1882	2,33,57	3,74,632	6,07,689		
Increase	9,858	1,51,415	1,61,273		
Decrease

Earnings per train mile, excluding materials carried on Maintenance and Revenue account,—

			Coaching		Goods.		Total.	
			Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
1883	...	...	3 2 7	4 13 0	4 4 8	4 4 8		
1882	...	...	3 10 8	5 0 10	4 8 4	4 8 4		
Increase	...	...	...	0 8 1	0 3 10	0 3 8		
Decrease	...	...	...	...	...	...

Shunting mileage—Decrease hours 915.

EAST INDIAN RAILWAY.

Statement showing the Totals and Increases and Decreases of Staples during four weeks ending 25th August 1883.

STAPLES.	WEIGHT.				AMOUNT.		1883.		
	1882.	1883.	1882.	1883.			Increase.	Decrease.	
Beer, Commissariat	5,320	2,250	2,070	810	Mds.	Mds.	Mds.	Mds.	Rs.
not Commissariat	2,600	2,570	2,470	3,490			20	30	....
Betel-nuts and leaves	7,110	8,620	8,190	10,400			1,510	2,210	....
Boots and shoes	2,260	1,460	3,110	1,880			....	800	1,230
Brass and brass-ware	15,900	16,960	12,890	11,380			970	....	1,510
Bricks	10,680	14,460	1,150	2,370			3,780	1,220	....
Coal, up	3,40,440	3,78,810	1,74,820	1,75,920			38,370	1,100	....
" down	13,85,550	13,04,450	13,99,950	1,85,560			....	81,100	14,330
Copper and copper-ware	8,070	7,970	11,150	12,140			990	100	....
Cotton	20,290	20,200	27,830	23,490			....	90	4,340
" twist	11,680	11,560	14,990	15,030			40	120	....
Dye-wood	2,300	2,200	1,830	1,490			570	100	410
Empty coopsahs, &c.	6,850	7,050	3,610	4,180			....	5,670	540
Firewood	17,290	11,020	1,310	770			....	....	....
Fruits	16,020	10,330	7,550	310			170	....	....
Glass and glass-ware	8,530	2,590	4,160	3,650			940	510	....
Ghee and oil	36,210	31,640	31,730	35,510			1,450	3,780	....
G. B. T. packages	630	610	2,190	2,200			10	10	....
Government Commissariat stores	8,690	8,330	11,340	11,240			....	300	100
Ordnance stores	14,270	23,170	31,810	29,460			....	....	11,350
Barley	2,490	13,570	180	2,210			11,080	2,030	....
Oats	6,020	17,580	1,810	5,190			11,560	3,380	....
Rice	2,90,330	3,10,460	88,890	1,09,910			20,130	20,120	....
Wheat	4,50,590	15,72,220	2,12,880	6,22,360			11,24,630	4,09,480	....
Other grains	66,180	1,0,446	10,770	24,070			44,260	13,300	....
Pulses of all kinds	1,60,440	1,54,550	38,180	35,640			....	5,890	2,490
Gunny	51,90	70,630	33,360	54,010			27,720	20,650	....
Hides and horns	44,150	46,670	27,530	27,230			2,520	....	300
Indigo	3,290	2,030	880	560			....	1,260	320
Iron	62,620	65,430	55,760	49,920			2,810	....	5,840
Jaggery	25,500	27,410	6,190	7,020			4,910	830	....
Lac	24,780	28,630	15,900	15,910			....	1,159	939
Minerals	74,490	65,840	12,650	11,590			....	8,650	1,060
Mowah flower	12,530	18,730	1,910	2,820			6,200	940	....
Oil-cake	10,790	10,570	2,230	1,890			....	130	340
Opium	60	440	180	650			380	470	....
Paper	7,520	6,800	10,480	7,240			....	720	3,240
Piece-goods	66,610	86,610	85,430	1,03,650			20,000	18,220	....
Railway materials—Construction account	8,59,470	2,86,620	13,980	6,040			....	5,72,850	7,940
Foreign	61,350	2,34,140	39,850	1,73,840			1,72,790	1,33,990	....
Roots	11,810	18,460	5,380	9,140			6,680	3,760	....
Salt	2,96,730	4,01,840	85,600	1,06,670			1,05,140	21,070	....
Salt-petre	39,910	30,210	19,860	15,340			....	9,700	4,520
Seeds	10,48,120	11,58,380	3,87,340	3,98,240			1,10,260	10,900	....
Silk	1,950	2,120	2,510	2,250			190	....	260
Speiser	9,780	11,290	13,720	13,980			1,510	230	....
Spices	8,270	9,080	5,960	5,620			80	....	340
Stones	53,540	41,430	7,510	5,400			....	12,110	2,110
Sugar	68,770	88,780	22,060	28,660			23,010	6,600	....
Tea	1,670	2,430	2,350	3,620			830	1,270	....
Timber	17,320	18,700	7,160	6,280			1,380	....	870
Tobacco	32,410	46,700	16,630	24,960			11,380	9,330	....
Turmeric	3,800	3,310	1,380	1,720			510	340	....
Wines	2,380	3,060	6,890	7,420			680	600	....
Miscellaneous	1,14,000	1,16,240	1,00,610	1,02,260			2,240	1,650	....
Total	58,96,140	69,55,410	18,97,980	25,21,000			17,71,110	6,89,270	7,04,840
									66,250

URBAN BROUGHTON, Offy. Traffic Manager.

Weekly Return of Traffic Receipts on Indian Railways.

EAST INDIAN RAILWAY.

Approximate Return of Traffic for week ended 29th September 1883, on 1,509 miles open.

	COACHING TRAFFIC.		MERCHANTISE AND MINERAL TRAFFIC.		Other earnings (estimated.)	Total earnings.	TOTAL TRAIN-MILES RUN.		
	Number of Passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchan- dice.	Total.
Total traffic for the week... ...	206,957	2,18,713 1 0	Mds. s.	Rs. A. P.			Rs. A. P.	Rs. A. P.	
Or per mile of railway ...	144 15 0	24,82,059 30		Rs. A. P.	17,852 9 0	9,11,143 2 5	60,345	129,281	189,506
For previous 12 weeks of half- year	2,315,002	23,77,418 15 0	2,82,44,649 10	78,06,032 2 0	2,09,673 3 5	1,09,92,524 5 2	735,817 $\frac{1}{2}$	1,652,789 $\frac{1}{2}$	2,388,606 $\frac{1}{2}$
Total for 13 weeks ...	2,521,959	25,06,132 0 0	3,07,26,709 0	84,80,609 11 2	2,26,925 12 5	1,13,03,607 7 7	796,062 $\frac{1}{2}$	1,782,060 $\frac{1}{2}$	2,578,112 $\frac{1}{2}$
COMPARISON.									
Total for corresponding week of previous year ...	214,005	2,37,847 3 5	21,52,862 0	5,28,491 15 1	17,189 3 2	7,83,528 5 8	52,713	90,991	152,704
Per mile of railway correspond- ing week of previous year ...	.....	157 18 8	.....	350 12 0	11 6 6	520 0 2	.....	.....	.....
Total to corresponding date of previous year ...	2,294,815 $\frac{1}{2}$	26,96,887 5 2	2,76,41,123 30	69,05,577 15 1	2,54,410 8 11	98,56,875 13 2	708,498	1,421,802	2,130,390

Approximate statement of gross receipts of the East Indian Railway, prepared in accordance with Public Works Department Circular No. XXI Railway, dated 23rd July 1883.

RECEIPTS FOR WEEK ENDING 30TH SEPTEMBER 1882.			RECEIPTS FOR WEEK ENDING 29TH SEPTEMBER 1883.			TOTAL RECEIPTS FROM 1ST APRIL 1882 TO 30TH SEPTEMBER 1882.			TOTAL RECEIPTS FROM 1ST APRIL 1883 TO 29TH SEPTEMBER 1883.			Total increase in 1883.	Total decrease in 1883.
Mean mileage worked.	Receipts.	Per mile work- ed.	Mean mileage worked.	Receipts.	Per mile work- ed.	Mean mileage worked.	Total receipts.	Per mile work- ed.	Mean mileage worked.	Total receipts.	Per mile work- ed.		
1,506 $\frac{1}{2}$	Rs. 7,83,528	Rs. 520	1,509	Rs. 9,11,143	Rs. 604	1,506 $\frac{1}{2}$	Rs. 2,14,48,940	Rs. 14,235	1,509	Rs. 2,53,72,063	Rs. 16,814	Rs. 39,23,123	Rs.

EASTERN BENGAL RAILWAY COMPANY.

Approximate Return of Traffic for week ended 22nd September 1883, on 206 $\frac{3}{4}$ miles open.

	COACHING TRAFFIC.		MERCHANTISE AND MINERAL TRAFFIC.		Other earnings (estimated.)	Total earnings.	TOTAL TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchan- dice.	Total.
Total traffic for the week... ...	50,789	31,103 0 0	Mds. s.	Rs. A. P.			Rs. A. P.	Rs. A. P.	
Or per mile of railway ...	246	150 7 0	3,04,674 0 0	88,507 0 0	946 0 0	1,20,556 0 0	7,749 $\frac{1}{2}$	9,839	17,588 $\frac{1}{2}$
For previous 11 weeks of half- year	560,123	3,05,050 0 0	1,473 25	428 1 5	4 9 2	583 1 7	.....	.....	.....
Total for 12 weeks ...	610,912	3,36,153 0 0	24,06,117 0	5,25,947 0 0	8,298 0 0	8,39,295 0 0	86,108 $\frac{1}{2}$	73,975 $\frac{1}{2}$	160,083 $\frac{1}{2}$
COMPARISON.									
Total for corresponding week of previous year ...	41,898	29,673 0 0	4,72,361 0	1,61,524 0 0	256 0 0	1,91,453 0 0	6,089	14,712	20,801
Per mile of railway correspond- ing week of previous year ...	244	172 12 4	2,750 11	940 7 4	1 7 10	1,114 11 6	.....	.....	.....
Total to corresponding date of previous year ...	505,969	2,96,693 0 0	41,24,836 0	12,13,703 0 0	8,711 0 0	15,19,107 0 0	72,540 $\frac{1}{2}$	133,543 $\frac{1}{2}$	206,084 $\frac{1}{2}$

Includes Rs. 160 on account of Revenue stores.

EASTERN BENGAL RAILWAY COMPANY.

Approximate Return of Traffic for week ended 29th September 1883, on 206 $\frac{3}{4}$ miles open.

	COACHING TRAFFIC.		MERCHANTISE AND MINERAL TRAFFIC.		Other earnings (estimated.)	Total earnings.	TOTAL TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchan- dice.	Total.
Total traffic for the week... ...	55,404	32,469 0 0	Mds. s.	Rs. A. P.			Rs. A. P.	Rs. A. P.	
Or per mile of railway ...	268	166 11 6	3,85,195 0 0	98,387 0 0	5,019 0 0	1,37,875 0 0	7,781 $\frac{1}{2}$	10,616 $\frac{1}{2}$	18,398 $\frac{1}{2}$
For previous 12 weeks of half- year	6,31,011	3,36,940 0 0	1,863 4	475 14 0	24 4 5	666 13 11	.....	.....	.....
Total for 13 weeks ...	6,86,415	3,71,490 0 0	27,81,711 0	6,15,148 0 0	9,562 0 0	9,61,650 0 0	93,857 $\frac{1}{2}$	83,814 $\frac{1}{2}$	1,77,672 $\frac{1}{2}$
COMPARISON.									
Total for corresponding week of previous year ...	53,146	29,036 0 0	4,25,434 0	1,72,328 0 0	1,118 0 0	2,02,482 0 0	5,945 $\frac{1}{2}$	15,261 $\frac{1}{2}$	21,146 $\frac{1}{2}$
Per mile of railway correspond- ing week of previous year ...	309	169 0 11	2,427 2	1,003 5 10	6 8 2	1,178 14 11	.....	.....	.....
Total to corresponding date of previous year ...	5,59,115	3,25,729 0 0	45,48,270 0	13,86,031 0 0	9,829 0 0	17,21,589 0 0	78,486	1,48,745	2,27,231

Includes Rs. 125 on account of Revenue stores.

EASTERN BENGAL RAILWAY COMPANY.

Miles open. Total.

{ Ranaghat section 20½ } 35
 { Dum-Dum .. 14½ }

	COACHING TRAFFIC.		MERCHANTISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TOTAL TRAIN-MILES RUN.			
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchan- dise.	Total.	
Total traffic for the week—			Rs. A. P.	Mds. S.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Ranaghat section	2,752	752 0 0		6,978 0	277 0 0	8 0 0	1,037 0 0	349	232	581
Dum-Dum do.	6,506	865 0 0		1,969 0	27 0 0	10 0 0	902 0 0	612	15	627
Or per mile of railway—										
Ranaghat section	134	36 3 10		336 11	13 5 7	6 6 2	*49 15 7	.....	.....	.....
Dum-Dum do.	456	60 11 3		188 7	1 14 4	0 11 2	63 4 9	.....	.....	.....
For previous 11 weeks of half-year—										
Ranaghat section	26,524	7,468 0 0		1,35,613 0	2,756 0 0	74 0 0	10,298 0 0	3,923	3,168	6,391
Dum-Dum do.	71,070	8,572 0 0		25,615 0	194 0 0	112 0 0	8,878 0 0	6,581	314	6,890
Total for 12 weeks—										
Ranaghat section	29,276	8,230 0 0		1,4,591 0	3,033 0 0	82 0 0	11,335 0 0	3,571	3,400	6,972
Dum-Dum do.	77,876	9,437 0 0		27,584	221 0 0	122 0 0	9,780 0 0	7,193	329	7,523
Total of both Sections	106,852	17,657 0 0		1,70,175 0	3,254 0 0	204 0 0	21,115 0 0	10,765	3,729	14,495

EASTERN BENGAL RAILWAY COMPANY.

Miles open. Total.

Ranaghat section 20 $\frac{1}{2}$ } 35
 Dum-Dum 141 }

PATNA AND GYA STATE RAILWAY.

Approximate Return of Traffic for week ended 22nd September 1883, on 57½ miles open.

	COACHING TRAFFIC.		MERCHANTISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.			
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.	
		Rs. A. P.	Mds. S.	Rs. A. P.	Rs. A. P.	Rs. A. P.				
Total traffic for the week	15,219	9,596 5 0	16,685 30	1,439 0 0	50 7 0	11,085 12 0	1,917 1	476 1	2,304	
Or per mile of railway	266	167 12 4	291 30	25 2 6	0 14 1	193 12 11	.....	.....	.....
For previous 11 weeks of half-year	...	98,843	*40,650 7 0	† 2,74,030 0	† 19,433 11 0	† 563 11 0	65,646 13 0	20,103 1	6,512 1	26,671
Total for 12 weeks	1,14,062	55,246 12 0	2,90,715 30	20,872 11 0	613 2 0	76,732 9 0	22,081	6,989	29,070	
COMPARISON.										
Total for corresponding week of previous year	§ 13,928	§ 8,123 6 0	§ 23,085 0	§ 2,213 0 0	.....	§ 10,336 6 0	§ 1,635	§ 1,848	§ 3,183
Per mile of railway, corresponding week of previous year	24 1	142 8 3	405 0	38 13 2	.....	181 5 5	.....	.....	.....
Total to corresponding date of previous year	1,10,761	56,146 1 6	2,75,193 0	29,010 14 0	952 12 5	86,109 11 11	18,727	18,246	36,971	

* Deducted number of passengers 124 and Rs. 698 on account of differences between the approximate and audited returns to week ending 25th August 1923.

Added m/s. 27,356 and Rs. 646-11-0 on account of ditto ditto ditto ditto.

Deducted Rs. 70-13-0 on account of ditto ditto ditto.
Represents approximate figures as audited figures are not obtainable.

Represents approximate figures, as audited figures are not obtainable.
Represents audited figures of the corresponding week of previous year.

Approximate Statement of gross receipts of the Patna and Gaya State Railway.

Approximate Statement of gross receipts of the Faina and Gya State Railway.

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RECEIPTS FOR WEEK ENDED **RECEIPTS FOR WEEK ENDED** **TOTAL RECEIPTS FROM 1ST**
APRIL, 1882, TO 23RD. **TOTAL RECEIPTS FROM 1ST**
APRIL, 1882, TO 29TH.

3RD SEPTEMBER 1882. 22ND SEPTEMBER 1883. APRIL 1882 TO 23RD SEPTEMBER 1882. APRIL 1882 TO 22ND SEPTEMBER 1883.

Total increase Total decrease

Approximate Statement of gross receipts of the Patna and Gya State Railway.

RECEIPTS FOR WEEK ENDED 23RD SEPTEMBER 1882.			RECEIPTS FOR WEEK ENDED 22ND SEPTEMBER 1883.			TOTAL RECEIPTS FROM 1ST APRIL 1882 TO 23RD SEPTEMBER 1882.			TOTAL RECEIPTS FROM 1ST APRIL 1883 TO 22ND SEPTEMBER 1883.			Total increase in 1883.	Total decrease in 1883.
Mean mile worked.	Receipts.	Per mile worked.	Mean mile worked.	Receipts.	Per mile worked.	Mean mile worked.	Receipts.	Per mile worked.	Mean mile worked.	Receipts.	Per mile worked.		
	Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.
57	10,336	181	57½	11,086	194	57	2,14,196	3,757	57½	3,95,963	3,426	18,227

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SUPPLEMENT TO The Calcutta Gazette.

WEDNESDAY, OCTOBER 17, 1883.

OFFICIAL PAPERS.

Non Subscribers to the GAZETTE may receive the SUPPLEMENT separately on payment of Six Rupees per annum if delivered in Calcutta, or Twelve Rupees if sent by Post.

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The 5th October 1883.—The following circular from the Revenue and Agricultural Department of the Government of India, No. 68F.S., dated the 14th September 1883, and its enclosure, regarding the experiment in sericulture conducted in Chhindwara, are published for general information.

COLMAN MACAULAY,
Secretary to the Govt. of Bengal.

Circular No. 68F.S., dated Simla, the 14th September 1883.

From—E. C. BUCK, Esq., c. s., Secretary to the Government of India, Revenue and Agricultural Department,
To—The Chief Commissioner, Central Provinces.

I AM directed to acknowledge the receipt of your letter No. 3675—203 of the 17th ultimo, forwarding a report on the experiment in sericulture conducted in Chhindwara during the months of February, March, and April last, and to say that the report is interesting and promising and creditable to the officers who carried out the experiment.

2. With reference to paragraph 6 of Mr. Fuller's report, I am to suggest the cultivation experimentally of better classes of mulberry trees, such as *morus multicaulis*. It is probable, however, that this question has already received the consideration of the Agricultural Department.

No. 304, dated Nagpur, the 23rd July 1883.

From—J. B. FULLER, Esq., Director of Agriculture, Central Provinces,
To—The Secretary to the Chief Commissioner, Central Provinces.

I HAVE the honour to submit the following report on the experiment in sericulture which was conducted in Chhindwara during February, March, and April of the current year.

2. The object of the experiment was to discover whether the climate of the Satpuras was suitable for growing Japanese silk on the system which is followed in the Dehra Dun. The peculiarity of this system is that only a single crop of cocoons is raised in the year, whereas in Bengal several crops are raised in succession. The eggs are hatched at Dehra in February, and the cocoons are ready by the end of March. The eggs which are retained as seed for the next year's crop are then sent up to Mussoorie, where the comparatively low temperature prevents them from hatching until brought down again to Dehra in the February of the following year. In Bengal, on the other hand, the eggs resulting from the spring crop of cocoons are allowed to hatch out during the rains, and the eggs resulting from the rain crop are allowed to yield a third crop in the autumn. The deterioration of Bengal silk has been ascribed to this (the polyvoltine) system of culture. The rain and autumn crops of worms have to endure a climate which is unsuitable for them, and the breed becomes in consequence permanently enfeebled. The choice between the Dehra and Bengal systems lies between having one crop of good silk in the year and having several crops of silk of poor quality.

3. In circular No. 24F. and S., dated 5th June 1882, the Government of India, in the Department of Revenue and Agriculture, offered to supply the Administration of these Provinces with 2 oz of silk-worm eggs from Mussoorie if an experiment was undertaken with them. For successful silk growing it is necessary that the climate should not become very hot until the worms have finished spinning their cocoons, that is to say, until the end of March or beginning of April. In this respect the climate of the Satpura district in these Provinces most nearly resembles that of Dehra. The station of Chhindwara stands at a height of over 2,000 feet above sea level, and has a climate typical of the Satpura region. There were a sufficient number of mulberry trees in and around the station to provide foliage for a small trial. It was accordingly determined to make the experiment there. So far as management was concerned, the experiment was made under exceptionally favourable circumstances. The Deputy Commissioner, Mr. Tawney, took a lively interest in it, and made excellent arrangements for its proper conduct. The immediate charge of the experiment was committed by him to Mr. DeLange, second clerk in the District office, who carried out his instructions zealously and carefully, and has submitted a very good report. Since no one in Chhindwara had any practical acquaintance with silk rearing, it was considered advisable to import a trained man from Dehra, who does not, however, seem to have rendered much real assistance. His pay and travelling expenses (Rs. 158-4-2) constitute the heaviest item in the cost of the experiment.

4. Two oz. of Japanese eggs were received from Mussoorie on February 10th, and between that date and February 25th, $\frac{3}{4}$ oz was hatched out by exposure to the sun. This is calculated to have yielded some 30,000 worms. Hatching was then discontinued, since it was believed that the supply of mulberry foliage would not be sufficient for a larger number of worms—a belief which was found to be incorrect, as events showed that the mulberry trees which Chhindwara contained could have supplied food to eight times this quantity. The hatching out of the worms has to be so timed as to take place when the mulberries are coming into new leaf, and might in the present case have been effected sooner with advantage. Mr. Tawney believes that February 5th is, in ordinary years, a safe date to calculate upon.

5. It was originally intended to erect a cheap rearing shed of brushwood, but it was found possible to utilize an old brick cattle shed, which suited the purpose well. The treatment of the worms is described as follows in the district report :—

" As the worms were hatched each day they were put into bamboo trays, with the dates affixed, and fed on tender leaves, cut very small."

" After a few days the stronger worms would come to the top, and these were again removed to other trays bearing the same date ; and so on, till the contents of each tray were distributed into several other trays, to prevent overcrowding. The worms were not handled, but removed from tray to tray by means of small pincers, the leaves being lifted with the worms on them."

" For about 20 days they were kept in trays, and then removed on to the tables, when they were fed on whole leaves. The tables were cleaned every second day."

For the first 20 days the worms were fed on detached leaves cut into small pieces. After this leaves were given them in branches, twigs and all. The leaf given to the worms each day was carefully weighed, and the total weight of foliage used in the experiment was found to be 59 maunds. The superficial area of the trays in which the worms were reared was 130 square feet. This is one-third more space than that allowed in Italy, but one-fifth less than the space which was found necessary in the Dehra experiments.

6. The mulberry trees in Chhindwara were of two varieties—one having much thicker leaves than the other. Mr. Duthie, Superintendent of the Saharanpur Botanical Gardens, to whom specimens of both varieties were submitted, pronounced the thicker leaved one of the two to be *Morus atropurpurea* and the other to be *Morus indica*, the mulberry ordinarily

used for silk growing in Bengal. The Dehra silk rearer from the first preferred the thicker leaved variety, and the results have shown his preference to have been justified. The worms fed on each variety were kept carefully separate, and the thick-leaved mulberry has been proved to yield much the best silk (see paragraph 12).

7. The first cocoon was spun on March 22nd, thirty-two days after hatching. The following arrangements were made :—

“ To enable the worms to make their cocoons, whole branches with leaves were spread over them, the leaves serving as food for those that had not commenced as yet ; other contrivances were also made by tying three branches of cypress together and spreading them like a triangle over the worms ; to these they took readily, and the cocoons made on these were cleaner and better than those made under the leaves and branches of the other tables.”

8. It is interesting to note here the temperature which the worms had to endure. It was recorded three times daily, at 7 A. M., 2 P. M., and 10 P. M. The highest temperature registered up to March 19th was 90°, which occurred on five days before that date. The lowest temperature registered was 68°. On March 20th and 21st the thermometer marked 92°, and on March 22nd rose to 94°, which was the maximum registered on each subsequent day of the experiment. After March 22nd the minimum was never below 72°, and on several days the thermometer never fell below 82°. Water was sprinkled on the floor of the shed to keep the temperature down, but it is probable that it was considerably hotter than a grass shed would have been.

9. The cocoons were weighed as they were cleared each day from the tables, and their total “ green ” weight was 41 lbs. 12½ oz. A portion of them were “ sun-dried,” the chrysalides being killed by exposure to the sun. Another portion were “ steamed ” at my suggestion in the simple manner used by rearers of tassar silk in Chhattisgarh districts. The process is described in the report as follows :—

“ The steaming was effected by means of two pots ; the lower was half filled with water, and a wire flour sieve was put on its mouth, into which the cocoons, a pound at a time, were put ; the other pot, its mouth having been broken off, was inverted over the lower one, so as to prevent the steam escaping. Within 15 minutes of each steaming the chrysalides were killed thoroughly, as was tested by opening a few. The steamed cocoons were then dried in the shade, weighed and put away.”

10. When thoroughly dry the cocoons were re-weighed and amounted to 14 lbs. 14 oz. They had therefore lost two-thirds of their weight, those which were “ steamed ” losing rather less weight (62 per cent.) than those “ sun-dried ” (66 per cent.). They were then despatched to Messrs. Thomas and Co., Brokers of Calcutta, who had kindly engaged to have the silk spun and valued. The spinning was effected in the Berhampore factories of the Bengal Silk Company. The cocoons yielded 4 lbs. 5 oz of spun silk, and the following products possessing mercantile value :—

		oz.
Tape Chassum	.. .. ..	10
Feshwa No. 1	.. .. ..	1½
Feshwa No. 2	.. .. ..	1
Godhur	.. .. ..	2½

11. The success of the experiment depends upon the quantity as well as upon the quality of the silk produced. As regards the quantity of produce, it is possible to test the results by comparing the proportion of cocoons to eggs and of silk to cocoons with the ratios which are accepted as the standard in works on sericulture. This comparison is effected below :—

	Standard.	In the experiment under report.
One oz. of eggs yields ..	from 20 to 23 lbs. dry cocoons ..	19·8 lbs.
Four lbs. of dry cocoons yields ..	one lb. silk	1·16 lbs.

The ratio of cocoons to eggs is very nearly up to the standard, while the ratio of silk to cocoons is above it. This is one of the most satisfactory points in the results, since it proves that the cocoons were above the average size and weight.

12. The best indication of the quality of the produce will be afforded by quoting the Calcutta report. Of the cocoons Mr. Stocks, the Manager of the Berhampore Silk Factory, writes :—

“ I went through the cocoons carefully and weighed them. The “ sun-dried ” and the “ steamed ” appear much of the same quality. I preferred the latter, and they have given better produce. The double cocoons were not more than 3 per cent., and the useless ones 1 per cent. I should say that these two lots were worth Rs. 3·4 per seer *dry*. The sun-dried *China mulberry* ones were a poor lot,—2 per cent. of double and one-fourth stained. I should say Rs. 2·8 per seer *dry* a high value for them.”

"The silk is very good from the thick-leaved mulberry cocoons, but you will find it does not open so freely as good silk should : the great heat required to unwind the cocoon is to blame for this."

"I made the silk 12-13 deniers, and it was carefully reeled so."

It is noticeable that the worms fed on the thicker leaves of the two varieties of mulberry (*Morus ciliopurpurea*) gave much better cocoons than those fed on other variety (*Morus indica*), termed the China mulberry in the above report.

The Broker's report on the spun silk is as follows:—

"We have examined the two large bundles of raw silk the produce of the 'sun-dried' and 'steamed' thick-leaved mulberry cocoons."

"There is no noticeable difference between either of these bundles or the three skeins from the 'sun-dried' China mulberry. We report the quality to be decidedly good ; the colour is a good white, but in some skeins there is a slightly greenish tinge, and in others a leaden shade. The thread is very nervous and the thread strong. It is also very clean : some slight show of small knit, but hardly worth notice, except in a critical report : the size is 12 to 14 deniers, but is not so reliable in this respect as we should like to see it. However, without some experience of the yield and nature of the cocoons the reelers are handling, they are at a great disadvantage ; in the present case we consider the reelers have been quite as successful as could be expected—the silk winds very well."

"The yellow skein we have not opened, as we think you would like to receive it in a fresh state : it doubtless will bear just as good a report as the others : the only special remark to make is, though the colour is bright, it is not of the brightest."

It will be noticed that no market value is quoted for the silk, because in the words of the Broker's report—

"If valued as Bengal raw silk, we could not put the value higher than Rs. 16 to Rs. 17 per factory seer, whereas it is the writer's opinion that if the silk be submitted for valuation in Europe, and is not supposed to be Indian or Asiatic silk, it will be valued at about 20s. per pound in London, running certain kinds of European reeled silk, to wit, Broussa, very close."

"We could suggest that you send forward the samples to London, Marseilles, or Lyons for careful report and valuation, but if this be done the writer ventures to counsel you, if you desire to get a perfectly unbiased report and value, to take some pains to disconnect the silk with India, with which object Indian tickets, paper, and packing should be destroyed, and the skeins should not remain bundled and tied up as now in packets of three and four ere they pass into the hands of the expert at home. On no account send forward any of the cocoons—Chassum or other waste ; these would serve as a connecting link."

"In conclusion, we have only to remark that the Bengal Silk Company work the factories formerly owned by Messrs. James Lyall and Co. This Company would like to secure a good supply of such cocoons as they have reeled for your department, and we and they will be glad to learn that your department sees its way to increase the production and to know at what rate this is expected to take place."

The silk was therefore of a quality greatly superior to that ordinarily produced in Bengal and equal to certain classes of European silk.

13. Messrs. Thomas and Co. have favoured me with the following additional remarks on the waste products Chassum, &c. mentioned at the conclusion of paragraph 10 :—

"Besides the raw silk produced from the cocoons we return you the waste or refuse, which some 20 years ago had only a nominal value."

"Tape Chassum appears very good of its kind, but we cannot say what the valuation we now put on it of Rs. 175 per factory maund would be obtainable, because it is white ; as a rule, there is a prejudice against white Bengal Chassum, because at the dye-pot the white of Bengal silk and Chassum can't be relied on as a true white, and not being a yellow it becomes a bastard colour. But in the writer's opinion this white Chassum will prove perfectly reliable as a white silk and with consumer's minds set at rest on this point the valuation of Rs. 170 ought to-day to be obtainable. Rupees 170 is an extremely high value. This class of Chassum has never sold so high in former year. Last year Rs. 160 was the rate : the previous year Rs. 140. Before these years the price ranged between Rs. 125 and Rs. 140 per factory maund."

"Feshwa No. 1 is worth nearly as much as the Tape Chassum, selling along with it in the contracts we pass.

"Feshwa No. 2 worth about Rs. 80 per factory maund."

"Godhur or Low basin waste and husks worth about Rs. 20."

14. The experiment may therefore be pronounced to have been a complete success. It was, it is true, on a very small scale, but the results are sufficient, I think, to establish beyond doubt that excellent silk can be grown in the Satpura tract if eggs were imported from Mussoorie and only a single crop taken in the year. And in addition to this, the experiment was conducted with so much care as to furnish a number of reliable *data* which will be extremely useful in the event of sericulture being taken up on a large scale. On this subject, which is directly connected with the extension of mulberry plantations, I will do myself the honour of addressing you in a separate communication.

15. The total cost of the experiment was only Rs. 292-14-6, considerably more than half of which (Rs. 158-14-2) was incurred on the salary and expenses of the silk rearer imported from Dehra. Economy is therefore another point for which Mr. Tawney is to be congratulated on his management.

RESOLUTION ON THE GENERAL ADMINISTRATION REPORT OF THE CHITTAGONG DIVISION FOR THE YEAR 1882-83.

GENERAL DEPARTMENT—MISCELLANEOUS.

Dated Darjeeling, the 6th October 1883.

RESOLUTION.

READ—

The General Administration Report of the Chittagong Division for 1882-83.

The Lieutenant-Governor is glad to record the punctuality with which the present report has been submitted. Mr. Lewis was Commissioner throughout the year, and the districts of the division were also administered by the same officers during the entire year, with the exception of Tipperah, where Mr. Toynbee had charge for $10\frac{1}{2}$ months and Mr. Hopkins for the remainder of the year.

2. *Tours.*—All officers, both European and native, appear to have fully complied with the wishes of the Government on this subject, and the report shows that much useful and important work was done during the tours in each district. The Lieutenant-Governor is glad to find that these tours of inspection were not limited to the cold weather season, and that as occasion required visits to the interior were not unfrequently made in June, July, and August. He notices especially the commendation bestowed by the Collector of Chittagong on Mr. Mackertich, Sub-Divisional Officer of Cox's Bazar, "for the energetic and methodical manner in which he set to work to make himself thoroughly acquainted with the sub-division."

3. *Weather and Crops.*—In all districts, except the Hill Tracts, the rainfall was sufficient, and the outturn of the crops satisfactory. In Chittagong the season was favourable to tea; but owing to the low prices realised the planters found it necessary to reduce expenditure on all gardens. In the Hill Tracts the weather proved unfavourable to joom cultivation, and the outturn of both cotton and rice fell below the average.

This section of the report furnishes, as usual, a table of the year's rainfall, but the figures for the sunder sub-division of Noakholly being identical for every month with those reported last year for 1881-82 are obviously the figures for that year erroneously entered in the table instead of those for 1882-83. This is not the only instance of carelessness in compiling the statements of the report. Others will be pointed out below, and Mr. Rivers Thompson must request that such mis-statement may not be allowed to appear in future reports.

4. *Health and Condition of the People.*—Chittagong suffered a good deal from cholera and fever throughout the year, and small-pox was also prevalent in the district from April to July. In Tipperah the year was also unhealthy, though no outbreak of epidemic disease occurred. It is thought that the public health was, possibly, affected by the steeping of jute in water, a far larger crop of the plant than usual having been cultivated during the year. The villages along the eastern frontier of the Hill Tracts were visited by a severe outbreak of cholera in April and May, but other parts of the district were healthier than in the previous year. In Noakholly the year appears to have been fairly healthy. Except in the Chittagong Hill Tracts, the general condition of the people throughout the division was one of prosperity and independence. Food was abundant and the demand for labour greater than local supplies could meet. The work in connection with the railway surveys had increased the demand. Cattle-disease was prevalent in many parts of the division. In the Hill Tracts the tribes, particularly the Lushais of the Thanglawa clan, endured considerable hardships in consequence of the partial failure of their crops and their own thoughtlessness in using up, for the manufacture of liquor, the seed-grain which had been distributed among them.

Emigration and Immigration.—About 200 persons are reported to have left the Cox's Bazar sub-division for Arracan in the hope of obtaining waste land leases on easy terms in the latter district. Such migrations in the frontier districts of Bengal and British Burma are very common, and the causes are well understood, but it is not satisfactory to learn that no less than 500 hill families residing in the Fenny Valley emigrated from the Mong Rajah's circle into the Maharajah of Hill Tipperah's territory, in consequence, it is said, of unfounded apprehensions in connection with joom registration. The Lieutenant-Governor

desires to have a full report on this matter. The abandonment by so large a number of families of their homes points *prima facie* to some local mismanagement.

6. *Prices of Food and Labour.*—Rice was cheap throughout the division, and especially so in Tipperah and Noakholly, where the markets were glutted. In the Hill Tracts prices are usually higher than elsewhere, the markets being supplied by importation, as the hill people only grow their rice for home consumption. They were, however, lower in the past year than in 1881-82, notwithstanding the short crops of the year under report, and this fact was due to large importations, over 90,000 maunds of unhusked and 47,000 maunds of husked rice having been imported during the year, against 46,000 and nearly 17,000 maunds respectively in the previous year. Wages, both of skilled and unskilled labour, are everywhere high in the division.

7. *Manufactures and Mines.*—Tea is the most important manufacture, and it is confined to Chittagong and the Chittagong Hill Tracts. The number of gardens in the past year was 29, and the quantity of tea exported 1,030,927 lbs. against 810,890 lbs. in the previous year. Two rice mills are established at Chittagong and appear to be doing a good business.

8. *Trade and Commerce.*—The sea-borne trade of the Port of Chittagong again shows a large increase, its total value having risen from Rs. 1,88,63,478 in 1881-82 to Rs. 2,36,60,406 during the year. Of the increase 27 lakhs were due to foreign and the remainder to interportal trade. The imports advanced by Rs. 22,97,104 and the exports by Rs. 24,99,824. The chief articles of foreign export were rice worth Rs. 18,15,216 against Rs. 19,04,351, and jute worth Rs. 73,23,050 against Rs. 44,86,319 in 1881-82. The expansion of the jute trade is remarkable, but, as in other parts of the province, over-production has temporarily led to a fall in prices. The progress of the Port during the year will be more fully reviewed in the Resolution on its Annual Administration Report, but here it may be said that the export trade of the port was somewhat restricted by the prevalence of stormy weather in the Bay towards the close of the rice season, whereby supplies were prevented from coming from Noakholly, Tipperah, and the islands in the estuaries of the Megna. "Had railway communication existed," says Mr. Lowis, "a larger quantity of rice would have come in, and there would have been no decline under this head." The construction of the Daudkandy-Chittagong line, which the Lieutenant-Governor is very anxious to promote, will make the export trade of the Port so far independent of the state of the weather. In many other ways the construction of such a line with its contemplated extension from Comilla to Cachar would confer incalculable benefits upon these south-eastern districts. The rich agricultural products of Tipperah and Noakholly would find an outlet; the coal tracts about Koilashur on the borders of Hill Tipperah would be developed; the advancement of a backward people would be promoted, and an immense impulse given to the clearance and settlement of wide tracts of waste land. Chittagong already possesses many natural advantages of a seaport from its proximity to the sea, and its connection by railway with the districts of the north-eastern frontier would not only benefit itself, but would materially tend to relieve Calcutta. In Noakholly rice, betelnuts, cocoanuts, and hides, and in Tipperah rice, betel nuts, jute, and hides, form the chief articles of export, while the principal imports of both districts are piece-goods, tobacco, molasses, sugar, and oil. Tipperah also receives a large quantity of cotton from Hill Tipperah, nearly 60,000 maunds having been brought down in the past year, the greater part of which was forwarded to Calcutta *via* Naraingunge. From the Chittagong Hill Tracts, also, over 95,000 maunds of cotton were exported during the year. It is evident that the cotton trade of these parts would grow and increase rapidly if the means of communication were improved. The exports of India-rubber have fallen off, owing to the destructive over-tapping of the trees in the Howlong country.

9. *State of Public Feeling.*—The Commissioner remarks that there is absolutely no public feeling in the division regarding matters of public interest affecting the Empire in general. The people have their local interests, and are concerned only in matters which affect themselves, directly and personally. Some public feeling has accordingly been manifested in Chittagong in regard to the Noabad settlement and the new circle system of collecting revenue from Government tenants; while in the Chittagong Hill Tracts a general feeling of

discontent was, it is stated, awakened among the Mong Rajah's people by the orders for joom registration, regarding which a special report has been called for. Apparently the relations between the Chief and his tenantry are not of a friendly character, and some designing and interested people have taken advantage of the discord to promote their own interests. In Noakholly the people are contented and well disposed; and the only question which has produced a temporary excitement in Tipperah is a caste question affecting the Maharajah. But the satisfactory adjustment of this is anticipated. The Local Self-Government scheme, the Commissioner reports, evoked some apparent enthusiasm among the educated classes, consisting "mostly of pleaders, mookhtears, schoolboys, and teachers," at the head-quarters of the three Regulation Districts, but the question excited no practical interest among the people generally.

10. *Public Press.*—Vernacular newspapers are published in Chittagong and Tipperah, but they appear to possess no influence, and their circulation is small.

11. *Administrative Changes.*—The only change of the year calling for remark is the introduction of the khas tehsil or circle system of managing the Government estates in Chittagong, where they occupy three-fourths of the district. Five circles have been established, two of which, with the sudder station and Cox's Bazar for their head-quarters, are in charge of Deputy Collectors, while the rest in the interior are in charge of well-paid tehsildars. The system has been only a few months in operation, but there is reason to believe that it will prove a great convenience to tenants in paying Government dues, and conduce to considerable improvement in the collections.

12. *Police and Crime.*—The unsatisfactory condition of the police in Noakholly and Tipperah has doubtless engaged the attention of the Inspector-General, but a copy of the Commissioner's remarks will be forwarded to him. The circumstances which lead the District Superintendent of Noakholly to describe his men as a "slouchy, slovenly, indifferent lot" must admit of some improvement, and Mr. Lyall should enquire into the matter. The system of constant fines to which such free recourse has been had in Tipperah and Noakholly condemns itself, and the Lieutenant-Governor has no belief in its efficacy as a means of maintaining discipline. Without, of course, saying that fines ought never to be imposed, the Lieutenant-Governor is certain that the constant infliction of fines cannot improve the really worthless members of the force, while it discourages those who are anxious to improve themselves, and who, under more considerate treatment, would turn out useful policemen. The very fact that punishment is frequently inflicted by loss of pay must tend to suggest corrupt practices. The Inspector-General should consider and, if necessary, report on the suggestion that two out-posts should be opened to facilitate the police administration of the stations of Nabinagar and Habigunge.

The statistics of crime furnished in the report show that there was a large increase in both cognizable and non-cognizable cases in Chittagong, an increase in cognizable counterbalanced by a decrease in non-cognizable cases in Noakholly, a considerable decrease in both classes of cases in Tipperah, and a fair decrease in the Hill Tracts. Various reasons are assigned for the fluctuations, to which it is unnecessary to refer here, as the statistics of crime for the entire Province will be reviewed in the Resolution on the Annual Report of the Police Department. The principle on which the table in paragraph 60, purporting to show the working of the police in reporting cases, has been prepared is not intelligible. The sum of the A, B, and C Form cases, and cases rejected under section 117 of the Code of Criminal Procedure, entered against the years 1881 and 1882, should apparently be equal to the total number of cases for each year; but the table yields a different result. The A Form cases noted against 1881, again, are incorrect. Like the rainfall figures alluded to in paragraph 3 above, they are the figures for the previous year wrongly inserted in the report.

13. *Civil Justice.*—The statement showing the number and description of civil suits is also inaccurate, no less than five of the six sets of figures given in the column of totals being wrong. A general increase of litigation is, however, observable in Chittagong, Noakholly, and Tipperah. Suits for money and moveable property increased in the three districts from 15,948 to 17,936, suits under the rent-law from 20,817 to 23,067, and title and other suits from 5,971 to 6,291. In Chittagong the increase in rent suits is partly attributed to

disputes arising out of the settlement proceedings, and in Tipperah to the institution of a large number of suits simply to save limitation. The Munsifs are reported to have shown the greatest care in their judgments in the district of Chittagong; but the civil court system worked badly in the execution of decrees. In Tipperah and Noakholly complaints were made to the district officers on tour of the dilatoriness of the courts in disposing of rent suits. The attention of the High Court will be called to the subject.

14. *Land Revenue.*—The increase in the outstanding balances of land revenue in Chittagong and Tipperah at the close of the year was unsatisfactory; but the Lieutenant-Governor notes that portions of the balances have since been realised, and that the Commissioner is giving his attention to the reduction of the large amounts shown against Government estates, some of which are merely nominal arrears, not really realisable from the tenants. In Noakholly the collections were more successful, and a considerable reduction was effected in the balances. Notwithstanding the unfavourable season, the collection of the revenue was also satisfactory in the Hill Tracts. Both in Chittagong and Noakholly it has been found necessary to undertake an extensive revision of the settlements lately concluded, and these matters are being separately dealt with by the Board of Revenue and the Government. Past mistakes have already been to a large extent rectified in Noakholly, and it is hoped that they will be shortly corrected in Chittagong also. The Lieutenant-Governor acknowledges the good work done by the Collector of Noakholly in connection with the revision of revenue settlements. His enquiries during his recent visit to Tipperah confirmed the Lieutenant-Governor in the favourable report of Mr. Cooke's labours. The difficult questions connected with the howladari tenures in this district are the subject of a separate correspondence.

15. *Excise.*—The excise revenue of the division continues to increase, the amount realised in the past year having been Rs. 2,37,058 as compared with Rs. 2,13,050 in 1881-82 and Rs. 1,65,812 for the five years 1877-78 to 1881-82. The outstill system was in force in all districts, and the number of shops for the sale of country spirits was increased from 34 to 40 in Chittagong, and from 37 to 46 in Tipperah, the increase having been due, the Commissioner explains, to better arrangement of the sites for shops with a view to meet existing demands. The Commissioner is certain that there is no increase in drunkenness, and that the expansion of the revenue is perfectly legitimate. The Lieutenant-Governor, however, would have preferred to hear of a reduction in the facilities for procuring liquor. He believes that much more might be realised by the sale of the licenses if the number of shops was more limited. In Noakholly the shops were reduced from 14 to 13. The consumption of ganja fell in Chittagong and Tipperah, but slightly increased in Noakholly. The rate of duty having, however, been raised by the Board, a considerable increase of revenue was obtained. The revenue from opium also shows an advance, especially in Chittagong. The Commissioner attributes the advance to an increase of smuggling into Arracan, and not to the use of a much larger quantity of the drug by the people of the district itself. The Lieutenant-Governor will deal with this matter separately.

16. *Stamps.*—The stamp revenue from the districts of Chittagong, Noakholly, and Tipperah increased from Rs. 9,70,289 to Rs. 10,33,260, or by Rs. 82,971, the increase being observed in both judicial and non-judicial stamps. The larger sales of judicial stamps are obviously accounted for by the increase in civil litigation, while those of non-judicial stamps appear to have been mainly due to the execution of a larger number of leases, counterparts, bonds, and sale deeds, and to an increase in the issue of certificate stamps in Tipperah and Noakholly.

17. *Salt.*—The total quantity of salt on which duty was levied in Chittagong increased from 3,39,301 maunds in 1881-82 to 3,51,004 maunds, owing to larger clearances for Chittagong itself and Naraingunge. The clearances for Noakholly and Tipperah declined, but these districts drew much of their supply from Naraingunge, to which non-duty-paid as well as duty-paid salt can now be removed from Chittagong. In the saliferous districts of Chittagong and Noakholly there was an increase of consumption, and this is partly attributed to the reduction of duty.

18. *Communications.*—A fair amount of work appears to have been done in improving communications in the three Regulation Districts, and in the Hill Tracts surveys of three lines of road to connect Rangamati with Chittagong, Demagiri and Rankong, respectively, were undertaken. In Noakholly, Mr. Cooke and the Vice-Chairman of the Committee, Baboo Ram Lall Sen, are reported to have devoted much attention to the improvement of village communications. The attention of Road Cess Committees might be properly directed to the contemplated construction of the railway from Chandpore *via* Lucksham to Comillah and Chittagong, with the view to the completion of feeder roads.

19. *Education.*—The number of schools and pupils in all districts of the division, except the Hill Tracts, has increased largely, as is shown in the following statement; but the figures indicate the extension of the supervision of the Education Department over a larger number of indigenous schools rather than the creation of new schools. The extension in Tipperah is specially remarkable, the number of schools having risen from 1,615 (with 34,115 pupils) to 4,470 (with 90,509 pupils) within two years. This great increase calls for explanation, which the Director of Public Instruction will be asked to give in his next report:—

	1882-83.		1881-82.	
	Schools.	Pupils.	Schools.	Pupils.
Chittagong	...	1,417	37,143	844
Noakholly	...	2,105	45,552	1,509
Tipperah	...	4,470	90,509	2,862
Chittagong Hill Tracts	...	10	227	13
				237

The decline in schools and pupils in the Hill Tracts will be brought to the notice of the Director of Public Instruction. It appears from the Commissioner's remarks that the district has been almost entirely neglected by the educational officers. Female education makes fair progress in Tipperah and Noakholly.

20. *Committees.*—There are no committees in the Hill Tracts. In the other districts useful work has been done by all the committees. In Chittagong the Mahomedan community formed a committee during the year for discussing matters connected with their own social welfare, from which the Commissioner thinks some good may result. The Commissioner reports favourably of the good work done by the dispensaries of which there are 16 in his division. The want of a dispensary at Cox's Bazar is being felt, and some native gentlemen are taking steps to start one.

21. *Conduct of Zemindars.*—The few important landholders in the district of Chittagong are said to be considerate to their tenants. The majority of the zemindars of the district are, however, themselves tenants. The Commissioner remarks that the mere suggestion that the Patni sale law is threatened by the Bengal Tenancy Bill has raised a great stir among them; but it must be pointed out that the Bill, far from proposing to abolish the Patni sale law, contemplates introducing only a few slight modifications into it, and these all in the direction of improving its effectiveness as a means of recovering rent. In Noakholly there are no large resident zemindars. The Lieutenant-Governor is glad to learn that the disputes between the members of the family of Nawab Abdool Gunny of Dacca, which had seriously interfered with the peace of the district of Tipperah, were amicably settled during the year. The management of their estates by the Chuckma Chief and the Mong Rajah of the Hill Tracts is severely commented on in the report.

Character of Officers.—The Commissioner's remarks will be communicated to the Appointment Department. Among the Covenanted Officers Messrs. Cooke and Maguire, and among Uncovenanted Officers Mr. Mackertich, Baboo Tarini Lal Chaudhuri, and Moulvie Dilwar Hossein Ahmed are specially praised. Mr. Lowis' knowledge of his division and his interest in its advancement are recognized by the Lieutenant-Governor.

By order of the Lieutenant-Governor of Bengal,

A. P. MACDONNELL,

Offg. Secretary to the Government of Bengal.

RESOLUTION ON THE REPORT OF THE SANITARY COMMISSIONER FOR
BENGAL FOR THE YEAR 1882, AND THE VACCINATION
REPORT FOR THE YEAR 1882-83.

MUNICIPAL DEPARTMENT.—SANITATION.

Dated Darjeeling, the 6th October 1883.

RESOLUTION.

READ—

The Report of the Sanitary Commissioner for Bengal for the year 1882, and the Vaccination Report for the year 1882-83.

Read again—

The Reports for the previous year, and the Resolution recorded upon them.

In consequence of the orders under which the Vaccination Report is incorporated with the General Report of the Sanitary Commissioner, the combined Report was not received by Government until the 18th July. As the Vaccination Report relates to the financial year, which ends on the 31st March, it is impossible to require the submission of the Sanitary Commissioner's Report on the date hitherto prescribed.

2. The temperature of the year 1882 was on the whole slightly below the average, the mean being $76^{\circ}15$ against a normal mean of $76^{\circ}24$. It was sensibly above the average in January, March, and December, and below it in May. The distribution of rainfall was more irregular than usual. The total fall of the year was 57.66 inches throughout the Province, against an average of 60.99 inches, the deficiency being spread over the greater part of Behar and Northern and Eastern Bengal. The rains began somewhat earlier than usual, the fall in May being 1.04 inches above the average. On the other hand July was unusually dry; and a break which occurred in the early part of October was succeeded by a heavy fall over the whole Province in the latter half of the month. In no division, however, was there any marked excess or deficiency of rain during the year as a whole.

3. The registration of vital statistics received considerable attention during the year, and the Sanitary Commissioner is of opinion that the results indicate that more than usual care has been bestowed on the subject by the magisterial and police authorities. Dr. deFabeck in particular instances the success attained in Burdwan under the energetic administration of Mr. Larminie. This officer "visited every registering circle at least twice during the year, instructed the superior police officers in the nature of the steps to be adopted for keeping the chowkidars in check, and threatened punishment for remissness. Some were severely punished. The publicity which the report of these active measures soon obtained brought about a palpable improvement, for the year's results showed an increase in the number of deaths recorded of 8,287." The Lieutenant-Governor observes that in this district the recorded death-rate is 35.42 per mille; while the birth-rate in the town of Burdwan is 27.58. If the conclusions arrived at by Mr. Bourdillon in his Report on the Census of 1881 are correct, and the true birth and death-rates of the Province are assumed to be about 34 and 31 per mille respectively, it is probable that the returns of Burdwan, a district where the well-known local fever has for years produced an abnormally large number of deaths, together with a reduced number of births, are not very far from the truth. Excellent results were also obtained in Bankoorah and Chumparun, where the Magistrates, Messrs. Anderson and Henry, devoted special attention to the accuracy and completeness of the returns. Wherever this is the case, it has been abundantly proved that a fair degree of accuracy can be secured; but a system which relies on the spasmodic and intermittent efforts of individuals can at best but look for a partial and uncertain success. It is hoped that the Union Committees to be established under the Local Self-Government scheme will, if properly supervised, provide a valuable agency for the collection of these statistics.

4. A register of mutations of births and deaths, which was devised by Mr. Carstairs, the Sub-Divisional Officer of Serampore, was given a trial during

the year, and was introduced experimentally into a number of municipalities and unions. It was not, however, found wholly successful, and its use is no longer enforced. A scheme drawn up by the Sanitary Commissioner for investing Civil Surgeons with greater powers and responsibilities for the effectual scrutiny of mortuary and birth returns was also introduced, but was found unsuitable in consequence of the serious increase of work which it threw on the ministerial establishments. Arrangements have, however, been made, in accordance with a suggestion of the Government of India, to publish in the *Calcutta Gazette* weekly returns of births and deaths in all first class municipalities, in addition to the usual monthly mortuary statistics of districts. The Compulsory Registration Act IV (B.C.) of 1873 is now in force in 113 towns, including the Hazaribagh Municipality, into which it was introduced after the close of the year under review. Prosecutions were instituted under its provisions in the following towns only :—

DISTRICTS.	TOWNS.	Number prosecuted.	Number convicted.	Number so quitted.	Number struck off.	Number pending trial.	Amount of fines realized.	Birth-rate per 1,000 of population.	Death-rate per 1,000 of population.
Burdwan ...	Burdwan ...	10	7	3	....	....	11 8 0	27.58	49.36
	Cutwa ...	4	3	1	....	....	1 8 0	Not registered.	Not registered separately.
Bankura ...	Bankura ...	4	3	....	....	1	3 0 0	31.47	37.23
	Hooghly and Chinsurah ...	55	47	7	....	1	56 12 0	22.49	29.59
	Uttarparah ...	4	....	....	....	4	....	19.05	29.03
Hooghly ...	Bansberiah ...	8	6	2	....	....	2 2 0	Not registered.	Not registered separately.
	Boidabatti ...	7	7	....	....	....	5 6 0	Ditto.	24.45
Howrah ...	Howrah ...	15	13	2	....	....	26 0 0	17.63	25.00
24-Pergunnahs ...	Suburbs of Calcutta ...	37	20	17	....	....	51 0 0	19.04	45.69
Rajshahye ...	Beauteah ...	12	12	....	....	....	12 0 0	18.67	28.39
Dacca ...	Dacca ...	27	24	3	....	....	33 12 0	21.00	29.70
Mymensingh ...	Jamalpore ...	1	1	....	....	....	1 0 0	40.64	25.16
Tipperah ...	Comillah ...	6	5	1	....	1	3 8 0	31.76	26.86
Maldah ...	English Bazar ...	2	1	1	....	....	Not stated.	Not registered.	27.19
Cuttack ...	Cuttack ...	11	11	1	....	....	15 7 0	Ditto.	20.02
	Midnapore ...	12	11	1	....	....	5 8 0	12.96	26.72
Midnapore ...	Tumlook ...	12	10	2	....	....	30 2 0	Not registered.	Not registered separately.
Purneah ...	Khirkoy ...	6	2	4	....	1	0 2 0	Ditto.	Ditto.
	Purneah ...	2	....	....	1	1	14.91	43.35	

It is impossible to believe that no breaches of the law occurred in any of the 94 towns not mentioned in the foregoing list. The Lieutenant-Governor has more than once pointed out that, where the Act has been introduced, it should not be allowed to remain a dead-letter, and he trusts that it will not again be necessary for him to draw attention to this matter. The Sanitary Commissioner should consider the advisability of requiring the submission in future of periodical returns showing the proceedings taken under the Act.

5. Births were registered in 45 towns against 46 in the previous year, registration having been discontinued in one town, Burhea in Monghyr. Excluding 1,501 still-born children, the number of births registered was 37,198 against 38,456 in 1881. The reduction amounted to 1,258, and the recorded birth-rate fell from 23.25 per 1,000 to 22.49. The excess of deaths over births as registered amounted to 11.41 per 1,000 against 11.54. The Sanitary Commissioner remarks that "in 15 towns against 12 in 1881 the birth-rates were highest." This observation is not understood. In 1881 there were 20 towns in which the recorded birth-rate exceeded 30 per mille, while in the year under review the corresponding number was only 13. These were the following, viz.—

		1882.	1881.
Jamalpore in Monghyr	...	43.79	43.94
Jamalpore in Mymensingh	...	40.64	40.76
Bhagulpore	...	37.87	28.78
Sitamurhi	...	37.22	30.53
Behar	...	35.75	35.96
Brahmanbariah	...	35.11	30.04
Gya	...	33.78	24.18
Monghyr	...	33.50	34.59
Basirhat	...	33.30	26.25
Kendraparah	...	32.55	33.06
Comillah	...	31.76	22.50
Bankoorah	...	31.47	25.49
Serampore	...	30.26	29.28

The greatest improvement took place in Bhagulpore, Gya, and Comillah. Only nine towns recorded births in excess of the death-rate. These were Jamalpore in Mymensingh, Brahmanbariah, Monghyr, Sitamurhi, Bettiah, Comillah, Mokameh, Chuprah, and Behar. Of the children born during the year, 20,040 were males and 17,158 females, the proportions being 116 males to 100 females against 113 in the previous year. In England the corresponding proportion is 104 males, which was approximated by only eight towns during the year under review. It must, however, be remembered that in this country the average age of the husband exceeds that of the wife in a much greater degree than is the case in Europe, and that in accordance with a well established physiological law a higher proportion of male births must therefore be expected.

6. The number of deaths registered throughout the Province, the 15,076 still-born children not being counted, was 1,349,651, or at the rate of 20·41 per 1,000 of the population. The death-rate in each of the last six years was—

				Deaths.	Ratio per mille.
1877	..	..	..	1,077,601	17·96
1878	..	..	..	1,064,116	17·73
1879	..	..	..	950,881	15·85
1880	..	..	..	922,633	15·40
1881	..	..	..	1,255,478	18·99
1882	..	..	..	1,349,651	20·41

The ratios for 1881 and 1882 are calculated upon the population as returned at the census of 1881; while those for the previous years are calculated on that of the census of 1872. The improvement during the last two years is therefore even greater than the above figures appear to shew. The highest death-rates were recorded in Nuddea (39·37), Burdwan (35·42), Beerhoom (34·34), Bankoora (32·21), Moorshedabad (30·80), Patna (29·28), Jessor (29·26), Backergunge (28·06), Rajshahye (27·32), and Balasore (27·27). In ten districts the recorded death-rate was below 15 per 1,000, and the figures must be regarded as worthless. These were Sarun (14·85), Monghyr (14·60), Hazaribagh (14·60), Tipperah (14·16), Chumparun, where the improvements brought about by Mr. Henry only had effect in the fourth quarter (13·90), Rungpore (13·49), Furreedpore (13·15), Sonthal Pergunnahs (11·05), Mymensingh (8·94), and Darjeeling (7·01). The chief cause of the enhanced mortality of the past year, in so far as it was real and not due to improvements in registration, was the extensive and fatal prevalence of cholera. The number of deaths recorded as having occurred from this cause exceeded that of the previous year by no less than 103,72. There was, however, a considerable falling off in the recorded mortality from fever and small-pox. The urban and rural circles contributed to the reported casualties of the year in the following proportions:—

			Deaths.	Ratio per mille.
Urban	..	1882 ..	76,601	31·05
		1881 ..	78,848	31·96
Rural	..	1882 ..	1,273,050	20·00
		1881 ..	1,176,630	18·48

There are strong reasons for believing that the mortality in Bengal towns is little, if at all, higher than that of country tracts. In the absence therefore of evidence of any accession of disease peculiar to rural circles, it seems probable that the increased number of deaths recorded in these circles in 1882 is chiefly due to improvements in registration. The total number of male deaths was 738,090, and of female deaths 611,561. The proportion per cent. of male to female deaths was the same as in 1881, viz. 120. Only nine districts returned proportions approximating the English rate of 109 male to 100 female deaths. These were Burdwan, Beerhoom, Bankoora, Balasore, Hooghly, Khulna,

Pooree, Cuttack, and Lohardugga. The following table shews the registered mortality according to age :—

		Under 1 year	RATIO PER 1,000 OF POPULATION.			Ratio per cent. of male to female deaths.
			Urban.	Rural.	Province.	
	1 to 5 years	..	184.45	86.31	89.94	121
		..	39.98	21.08	21.59	109
5 to 10 years	..	..	21.27	11.89	12.14	131
10 to 15 "	..	..	16.41	11.00	11.18	137
15 to 20 "	..	..	27.49	13.86	14.17	113
20 to 30 "	..	..	22.10	15.12	15.43	110
30 to 40 "	..	..	23.68	16.70	17.01	134
40 to 50 "	..	..	26.03	21.60	21.81	145
50 to 60 "	..	..	36.52	30.72	30.98	122
Above 60 years	..	..	62.07	45.62	46.29	101

These figures illustrate the terrible mortality among infants under one year of age. The Sanitary Commissioner reports that in 26 of the urban areas, the ratios of infant deaths ranged from 200 to 515 per 1,000 of infant population. The relative mortality among the different nationalities was much the same as in former years, the death-rates per mille being for Christians 14.20, for Hindus 20.48, for Mahomedans 20.71, for Buddhists 2.88, and for other classes 16.09.

7. In Calcutta both the birth and the death-rates are below those recorded for the other Bengal towns, being 17.32 and 30.41 per mille respectively, against 22.49 and 31.05. There are no variations of importance in the death-rates from particular diseases, except in the case of fever, the death-rate from which, probably, owing to more correct diagnosis, is only 8.35 per mille in Calcutta against 15.72 in other urban circles, the death-rate from "Other causes" being proportionately swollen. The average mortality in cantonments, with a population of 56,168, was at the rate of 13.35 per 1,000. There were no deaths in Fort William. During the year the Port of Calcutta was visited by 24,128 seamen, of whom 19,764 were Europeans and 4,364 natives. The average daily population of European seamen was 1,792; the number of admissions into hospital was 2,257, and there were 100 deaths. The proportion of deaths to population was therefore 55.80 per 1,000 against 53.33 in 1881. The increase is traceable to cholera, dysentery, and enteric and malarious fevers. Among native seamen the deaths amounted to 186, or at the rate of 7.32 per 1,000, against 141, or at 5.54 per 1,000 in the previous year. This increase was entirely due to the prevalence of cholera. A native Inspector has recently been appointed to supervise the floating population of the port, who, amongst other duties, is charged to advise them where to seek for medical aid when sick, and it is hoped that by this means some improvement will be effected in their sanitary condition.

8. The most prominent feature in the sanitary history of the Province during 1882 was the remarkable prevalence and fatality of cholera. The number of recorded deaths from this disease was 182,352, or at the rate of 2.75 per 1,000 of population—a mortality which was never reached in any year of the previous decade except in 1876. Cholera was found in 27,314 villages against 15,581 in the previous year; and prevailed epidemically in 115 circles, severely in 118, and mildly in 376, being altogether absent from only 35. Urban circles contributed 11,830 deaths, and rural circles 170,522, or at the rates of 4.79 and 2.67 per 1,000 respectively. The districts in which the mortality was most severe were Balasore (6.21), Jessore (6.05), Nuddea (5.46), Purneah (4.79), Mozufferpore (4.68), Backergunge (4.50), Pooree (4.25), Cuttack (4.19), and Durbhanga (4.14). The Commissioner of the Presidency Division will be requested to invite the attention of the Commissioners of the Suburban Municipality to Dr. deFabeck's remarks regarding the condition of the Chitpore, Nawabputty, and Khalaseebagan bustees, and the bustees in Bhowanipore, Kansaripara and Bhatpara, and to submit a report on the subject. The disease was as usual most prevalent in the dry months of February, March, April, and May, and subsided rapidly on the breaking of the rains, increasing again in November and December. The general relation of cholera to rainfall appears to be the only fact in connection with this disease which is known with any degree of certainty. The Sanitary Commissioner writes :—"The reports of the year do not cast any new light upon the etiology of the disease. Polluted sources of drinking supply

are always more or less suspected, and local insanitary conditions are very generally indicated as exciting or predisposing causes; but it is also to be remarked that in several instances local incidence of the disease is often quite independent of local conditions. Climatic insalubrity, deficient rainfall, imperfect drainage, the retention of moisture and damp in the soil, errors of diet, infection, importation, &c., are all in their turn accused of favouring, if not absolutely of originating, this disease." On the whole, cholera was most prevalent in the Orissa Division, especially in Pooree Town, where the large influx of pilgrims swelled the nominal death-rate to 13.33 per 1,000. The Rajshahye and Cooch Behar Division was the least affected by the disease.

9. The recorded mortality from small-pox shows a large falling off during the past year. The number of deaths reported during each of the past four years was—

				Deaths.	Ratio per mille.
1879	...	...	...	22,843	.34
1880	...	...	...	22,953	.34
1881	...	...	...	24,371	.36
1882	...	...	...	13,651	.20

The disease prevailed with more or less severity in 33 circles against 43 in 1881, and was wholly absent in 280. The mortality was apparently high only in Chittagong and the districts of the Orissa Division, in which the recorded death-rates were 1.06, 1.02, 1.02, and .84 per 1,000 respectively. It was also heavy in the following towns, viz. Chyebassa (12.15), Jamalpore in Monghyr (9.14), Bettiah (3.13), Balasore (2.91), and Kendrapara (2.35). The disease showed greatest activity in the hot months, from February to June, and diminished during the rains and cold weather. The following table shows the number of deaths from small-pox among children under 12 years of age:—

		Deaths.	Proportion per cent. to total mortality.	Proportion per cent. of male to female deaths.
Under 1 year	...	2,999	21.96	111
1 to 12 years	...	6,130	44.91	109
Total	...	9,129	66.87	110

The proportion of deaths among children to total deaths was 66.87, which, though still very high, is less than in the previous year, when the corresponding percentage was 72.04.

10. According to the returns, the mortality from fever amounted to 929,943 deaths, against 940,911 in the previous year. The reported death-rate per mille from this cause thus nominally fell from 14.23 to 14.06. The Sanitary Commissioner rightly observes that "this reduction is unimportant, and does not remove the belief derived from a study of the general fever history of the Province that, on the whole, fever was as prevalent and almost as fatal as it had been in the preceding year, whose records figure by far the highest rate of mortality of any year under registration." Dr. deFabeck points out, however, that the death-rate of a year which follows on another of exceptional mortality is swollen by the deaths of those whose constitutions had been undermined by the epidemic of the previous year. The following table shows the mortality from fever in each year of the last decade:—

				Deaths.	Ratio per mille.
1882	...	...	...	929,943	14.06
1871	...	...	...	169,505	2.56
1872	...	...	...	237,868	3.59
1873	...	...	...	303,645	4.59
1874	...	...	...	328,721	4.97
1875	...	...	...	368,087	5.56
1876	...	...	...	561,537	8.49
1877	...	...	...	711,036	10.75
1878	...	...	...	742,887	11.23
1879	...	...	...	622,260	9.41
1880	...	...	...	689,605	10.43
1881	...	...	...	940,911	14.23

The increase which is apparent in the record of late years is probably not so much due to greater mortality as to improvement in registration. During the year under review the virulence of the disease was limited, with few exceptions, to the Burdwan, Presidency, and Rajshahye Divisions, the districts most seriously affected being the following :—

					Ratio per mille.
Nuddea	...	...	...	...	30.18
Burdwan	...	...	...	...	28.86
Beerbboom	...	...	...	...	27.62
Bankoora	...	...	...	...	26.40
Moorshedabad	...	...	...	...	26.01
Rajshahye	...	...	...	...	24.24
Jessore	...	...	...	...	21.61
Bogra	...	...	...	...	19.72
Hooghly	...	...	...	...	19.63
Khulna	...	...	...	...	18.65
Pubna	...	...	...	...	17.97

On the other hand the districts of Midnapore, Howrah, 24-Pergunnahs, Dinagepore, and Rungpore, and the sub-division of Serampore, enjoyed comparative immunity. In Backergunge, Gya, Maldah, and Purneah there was no abatement from the fatality of the previous year, but throughout the rest of the Province the suffering was less severe, notably so in Hazaribagh, Patna, Julpigoree, Dinagepore, Midnapore, and Rungpore.

11. In paragraph 115 of the Report, Dr. deFabeck has made some very interesting remarks regarding the theories commonly put forward to account for the incidence of fever, and he has well exposed the fallacy of the widely prevalent idea that growing vegetation is in itself noxious to human and animal life. "If we regard malaria, as experience gives us every warrant for doing, in the light of a nutritive element to plant-life, whatever little we may know of its agency in regard to the human organism, it must plainly be our constant endeavour so to regulate the balance between soil-emanation and plant-absorption, that the energy of the latter may always be equivalent to, or more potent than that of, the former. Where this equilibrium of counteraction cannot be obtained, there it will be necessary to devote careful attention and labour to efficient drainage of the soil." And again: "There is a very common, but a very ill-grounded, prejudice in India against *growing* vegetation. Low vegetation, in so far as it excludes air and prevents proper ventilation, is undoubtedly objectionable; but so far from there being any single physiological act necessary to the vitality of plant-life which can either originate or favour malarial fever, everything that is known of such action has an exactly opposite tendency." In connection with the question of drinking supply, the Sanitary Commissioner has suggested, as the result of actual observation, that water which has been exposed to a high temperature may be drunk with perfect impunity, even though containing organisms which, under ordinary circumstances, are highly inimical to health. As an instance, Dr. deFabeck mentions the case of the waste water which had been passed through the condensers of a jute-mill, and had been subjected to a temperature exceeding 212°. It was found that the coolies and other persons employed on the mill preferred this water to that of the tanks or the river, and that those who used it enjoyed demonstrably better health than those that did not. Nevertheless, on a specimen of the water being submitted for analysis by the Chemical Examiner, Dr. Warden, in ignorance of its origin, unhesitatingly condemned it as unfit for drinking purposes. These results appear to suggest that the present processes of chemical analysis, while sufficient to recognise and disclose the presence of organic virus, are not sufficiently sensitive to distinguish deprivation of its malignity. An important field is thus opened up for sanitary and hygienic research. The question is not one which can properly be discussed, at all events in its present stage, in a Government Resolution; but the Lieutenant-Governor will await with much interest the results of any further investigations which Dr. deFabeck may be able to make in this direction in communication with Dr. Warden.

Superintendents of Ranchi and the Suburbs, and by the majority of the Inspecting Vaccinators. There was, however, a conspicuous decline in the proportion of inspections made by the Superintendents of Behar, Ranchi, and Orissa, and by the Deputy Superintendents of the Sonthal Pergunnahs and Metropolitan Circles. The falling off, which is said to be due chiefly to the gradual extension of protection, and the increasing difficulty of finding subjects, appears to be in a great measure justified.

15. On the whole, it may be said that the general feeling of the people towards vaccination is becoming more favourable. Marked evidence of this is given in Burdwan, Bankoora, Hooghly, Nuddea, Rajshahye, Noakholly, Bhagulpore, Sonthal Pergunnahs, and Manbhook. On the other hand, instances of determined opposition are not unknown, even in the most advanced towns, among particular classes. These should be rigorously dealt with under the special Act. The Inspector-General of Police will be requested to enquire into the conduct of the Sub-Inspector of Police at English Bazar in Maldah, who is said to have openly advised the people not to accept vaccination. The Commissioner of Patna will be asked to report further upon the statement that the Municipal Commissioners of Gya declined to render aid in the promotion of vaccination. The Lieutenant-Governor has learnt with pleasure that special assistance was rendered by Baboo Hem Chunder Ghose of Bagnan, Mr. Pope of Nunichi, Munshi Dilwar Ali, Baboo Rajendra Narain Mozumdar Chowdhuri of Narendahar, the Maharajahs of Hutwa and Shushung, the Rajah of Aul, and the zemindars of Bulrampore, Chowsaltipore, Madhupore and Mayna.

16. The Compulsory Vaccination Act V (B.C.) of 1880 was introduced during the year into the Municipalities of Howrah, Monghyr, Jamalpore, Gya, Serampore, and English Bazar, and into Utterparah from the 1st April 1883. It is now in force in 14 towns, and since the close of the year under review steps have been taken to introduce it into all the municipalities in the Burdwan and Presidency Divisions. The Sanitary Commissioner believes that the general extension of the Act is the only means of effectually breaking down the opposition that is still met with in many parts of the Province. It seems, however, that resistance is only offered by a few isolated classes, and is not in any way general even in the localities where it is found. The Lieutenant-Governor would prefer to deal with each case on its own merits, without having recourse to a sweeping measure for which public opinion is not yet ripe. The effect of vaccination on small-pox is illustrated by the following table:—

		Population.	Deaths reported.	Ratio per mil.
Thoroughly protected areas	...	20,223,268	579	.02
Fairly well " "	...	11,785,748	1,072	.09
Unprotected areas	...	34,848,852	9,355	.26

And again—

		Ratio per cent. of total attacked.	Ratio per cent. of deaths to number.
Vaccinated	...	17.63	11.53
Inoculated	...	5.64	54.43
Unprotected	...	75.68	18.01

These figures are significant, and need no comment.

17. An important experiment was made during the year by the introduction of the system of bovine vaccination in Calcutta. Assistant Surgeon Rai Ram Sunder Ghose Bahadur was deputed to Bombay for the purpose of making himself familiar with the details of the organization adopted in that Province, and on his return early in December 1882 arrangements were immediately made for introducing the system. The first calf was vaccinated on the 23rd January 1883, and during the two months that ensued between that date and the close of the year under review a large number of vaccinations were performed. The arrangements, which are still in their infancy, are somewhat imperfect; but improvements are being effected, and it is hoped that by the close of the current year the system will have taken deep root.

18. The total cost to Government of vaccinations performed during the year was Rs. 1,16,085, of which Rs. 71,745 represents the cost of the operations performed by the Government establishment, and Rs. 44,340 that of the

establishment provided by Government for supervising the operations of the licensed vaccinators. In addition to the above, a sum of Rs. 7,997 was expended on vaccination by various municipalities in the Province. Some assistance was also given by private persons, and by Dispensary Committees, including the Maharajahs of Hutwa and Durbhunga, the zemindars of Naraya, Gopalgunge, and Bori, the proprietors of the Kurnafuli Tea Estate in Chittagong, and the Dispensary Committees of Lalgunge, Tajpore, and Burhurwa. The total expenditure of Government was less by Rs. 1,032 than that of the previous year. The cost of each successful operation performed by the Government agency was 3 annas and $3\frac{3}{4}$ pies, and that by the licensed agency $10\frac{1}{4}$ pies, aggregating 1 anna $6\frac{3}{4}$ pies for both departments.

19. The Lieutenant-Governor had occasion, in the course of the year under review, to call the attention of the Sanitary Commissioner to the comparatively small amount of *sanitary* work performed by the members of the Vaccination Department, and especially by the Superintendents of Vaccination in their capacity as *ex-officio* Deputy Sanitary Commissioners. At the instance of Government the Sanitary Commissioner drew up a set of rules for the guidance of officers of his department in the discharge of their sanitary duties. These rules were approved and promulgated too late in the year to admit of their having very much effect during the period embraced by the present report. They have, however, had the effect of causing more attention to be given to the sanitary condition of towns and villages in the interior during the camping season of 1882-83. The Lieutenant-Governor hopes that the Sanitary Commissioner will give this subject his constant attention, and he is confident that, if the diary which has been prescribed is not allowed to fall into a matter of routine, it will be productive of valuable results in the future.

20. Of the total income of the municipalities in the Province, exclusive of Calcutta, amounting to upwards of 31 lakhs, 31 per cent. was expended on sanitary works against 24 per cent. in the previous year, besides 18 per cent. on roads against 16 per cent. This satisfactory result is mainly due to the large amount of funds set free by the exemption of municipalities from police charges. The Sanitary Commissioner reports that the municipalities in the districts of Rajshahye, Mymensingh, Durbhunga, Pooree, Manbroom, Khulna, and Patna have hitherto failed to take full advantage of the increased resources placed at their disposal. On the other hand, an exceptionally large proportion of municipal income was devoted to sanitary works in Rungpore (81.48), Dacca (47.09), Gya (41.86), Noakholly (40.61), Shahabad (39.37), Bhagulpore (38.76), Beerbhook (37.49), Sonthal Pergunnahs (36.83), Jessore (35.60) and Howrah (35.56). Systematic drainage schemes were inaugurated and either wholly or partially completed in Midnapore, Howrah, Naihatti, the Suburbs of Calcutta, Darjeeling, and Maldah. Schemes previously commenced were continued, and in some cases completed, in Rungpore, Gya, Bhagulpore, Cuttack, Pooree, Hazaribagh, and Lalbagh. Projects were also entertained in Culna, Soori, Tumlook, Serampore, Berhampore, and Bhagulpore. Excellent work was done in Maldah, where roads were metalled, side drains cut, and jungle removed in many villages within a radius of ten miles of head-quarters, and also in the Chanchal Estate. Channels were excavated for the drainage and improvement of large tracts of country, for agricultural extension, for improving habitations, for providing water-supply, for promoting communication by boat, and for increasing the volume of water in certain channels, thereby tending to check malarious exhalations in their neighbourhood. Dr. Ghose, the Civil Surgeon of Rungpore, has given an interesting and instructive account of the valuable results obtained from the drainage operations which have been carried out in the marshes round the town of Rungpore. This scheme was begun in 1877, and year by year, as the water-logged condition of the soil has been more and more removed, and the surrounding swamps reclaimed, the death-rate of the town from fever has steadily diminished. It is now 23.64 per 1,000, where it was 34.22 in 1878.

21. In Dacca a "very commendable beginning has been made in filling up the 'gors,' the receptacles for generations of sewage, filth, and the contents of the privies, which literally line their borders." The town of Chittagong is said to have benefited much by the clearing of rank jungle in the neighbourhood,

and by closer attention to surface cleansing and general conservancy. A grant of Rs. 10,000 from General Revenues has recently been made to this municipality to enable it to carry out certain schemes of improvement, and it is hoped that much good will ensue if the money is judiciously laid out. The question of a proper supply of water for the shipping of the Chittagong Port, which is one of the great wants of the place, is receiving the attention of Government in the General Department. In the Suburbs of Calcutta and in Howrah good work has been done in reclaiming and improving bustees, and by the introduction of provisions for free perflation by means of regularly constructed lines and streets.

22. The Burdwan water-supply scheme, which was noticed last year, was commenced, and made considerable progress in the year under review. The Bhagulpore scheme is under revision, but the bulk of the necessary funds has been subscribed, and the work has now been taken in hand. Arrangements are now being made for the extension of the Calcutta water-supply to the Suburbs and also to Barrackpore, and it is expected that substantial progress will be made during the current year. The Lieutenant-Governor's attention has also been given to a proposal by which all the river-side municipalities from Howrah to Serampore should unite in a common scheme for water-supply. This proposal has not, however, yet been formulated, and is still under the consideration of the Municipal Commissioners concerned. A number of minor sanitary improvements have been effected in various districts and towns of the Province, which it is unnecessary to recapitulate at length. The thanks of the Lieutenant-Governor are due to the gentlemen, official and non-official, by whose personal exertions and liberality they have been carried out. Mr. Rivers Thompson's acknowledgments are also due to Dr. deFabeek, who held charge of the office of Sanitary Commissioner during the greater part of the year, for his very interesting report.

ORDER.—Ordered that a copy of the above Resolution be forwarded to the Sanitary Commissioner, Bengal, for information and guidance.

Ordered also that a copy of the above Resolution, and of the Report, be forwarded to the Surgeon-General, Bengal, and to all Commissioners of Divisions, for information.

Ordered also that extract paragraph 15 from the above Resolution be forwarded to the Judicial (Police) Department for information, and to the Inspector-General of Police for information and guidance.

Ordered also that a copy of the above Resolution, together with a copy of the Report, be submitted to the Government of India, in the Home Department, for information.

By order of the Lieutenant-Governor of Bengal,

COLMAN MACAULAY,

Secretary to the Government of Bengal.

RESOLUTION ON THE REPORT ON THE EXCISE ADMINISTRATION
FOR 1882-83.

FINANCIAL DEPARTMENT—EXCISE.

Darjeeling, the 12th October 1883.

RESOLUTION.

READ—

The Report on the Excise Administration for 1882-83.

There were few administrative changes during the year. Towards its close the Excise Act was amended so as to fix the minimum quantity for retail sales of tari, pachwai, and country spirit, leaving the Board to fix higher limits by rule; to prohibit the possession of any quantity above the limit so fixed; and to regulate the importation and bonding of exciseable articles manufactured beyond the territorial limits of the Act. The duty on ganja was raised in the beginning of the year with the view of checking the consumption of the drug. The effects of this measure will be noticed further on.

2. The financial results of the year were an increase of Rs. 4,07,840 in the revenue, and a decrease of Rs. 6,030 in the charges. The fluctuations during the past four years are shown below:—

	Revenue.			Charges.			Net revenue.		
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1879-80	72,09,817	2,65,245	69,44,572			
1880-81	85,55,350	2,63,124	82,92,226			
1881-82	93,74,010	2,71,338	91,02,672			
1882-83	97,81,850	2,65,368	95,16,482			

Thus there has been an increase of $25\frac{3}{4}$ lakhs in the revenue in three years without any increase in the charges. All the divisions, except Bhagulpore (which was also the only exception in the previous year), contributed to the increase in 1882-83. The largest increase was obtained in Calcutta, Suburbs, and Howrah (Rs. 1,17,661), Hooghly, outside Howrah town (Rs. 41,449), Burdwan (Rs. 32,952), Gya (Rs. 31,016), Sarun (Rs. 24,264), Cuttack (Rs. 21,072), and Lohardugga (Rs. 20,847). The most considerable decrease was shown in Bhagulpore (Rs. 39,506), Rungpore (Rs. 12,487), Balasore (Rs. 7,553), and Shahabad (Rs. 4,372). The variations in each division and the incidence of the revenue were—

Division.	Increase.		Decrease.		Incidence per 100 of population.
	Rs.	Rs.	Rs.	Rs.	
Burdwan (without Howrah town)	71,434	.....	13
Presidency (without Suburbs)	34,821	.....	10
Calcutta, Suburbs, and Howrah	1,17,661	.....	232
Rajshahye and Cooch Behar	13,920	.....	7
Dacca	28,915	.....	7
Chittagong	24,038	.....	6
Patna	89,218	.....	16
Bhagulpore	24,853	13
Orissa	12,712	.....	12
Chota Nagpore	39,974	.....	13

Between 1880-81 and 1882-83 there was no change in the incidence in Rajshahye and Cooch Behar, and there was a decrease in Bhagulpore from Rs. 15 to Rs. 13; while there was an increase of Re. 1 each in Burdwan, Presidency, Dacca, Chittagong, and Orissa, and an increase of Rs. 2 in Chota Nagpore, Rs. 3 in Patna, and no less than Rs. 49 in Calcutta, Suburbs, and Howrah. Apart from Calcutta, the incidence was highest in Darjeeling (Rs. 53), Patna (Rs. 38), Gya (Rs. 29), Hooghly (Rs. 24) and 24-Pergunnahs (Rs. 23), and lowest in Noakholly (Rs. 2), Khoolna (Rs. 3), Furreedpore and Singbhum (Rs. 4), and Nuddea, Jessore, Pubna, Backergunge and Tipperah (Rs. 5).

3. The following table shows the fluctuations in the revenue under the different heads :—

ARTICLES.	REVENUE.			IN 1882-83 COMPARED WITH 1881-82		IN 1882-83 COMPARED WITH 1877-82.	
	Average of 1877-78 to 1881-82.	In 1881-82.	In 1882-83.	Increase.	Decrease.	Increase.	Decrease.
		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Country spirits	36,26,898	46,20,195	48,26,298	2,06,103	.....	11,99,400	.....
Rum	1,74,403	1,17,844	1,08,761	.....	9,083	.....	65,642
Imported wines, &c.	1,40,021	1,33,812	1,94,090	10,278	.....	54,069	.....
Tari	6,47,003	6,66,194	6,61,887	.....	4,307	14,884	.....
Pachwai	1,44,604	1,64,265	1,76,613	12,348	.....	32,009	.....
Charas	5,514	7,565	4,693	.....	2,872	.....	821
Sidhi, subzi or bhang	21,378	31,894	31,797	.....	97	10,219	.....
Majoom	2,551	2,423	2,543	120	.....	.....	8
Madut	76,761	85,863	85,025	.....	838	8,264	.....
Chundoo	21,505	26,080	27,387	1,307	.....	5,882	.....
Spirits used for arts	720	962	696	.....	266	.....	24
Ganja	14,32,062	17,13,791	18,60,497	1,46,706	.....	4,27,835	.....
Opium	15,44,175	17,47,000	17,95,928	48,319	.....	2,51,733	.....
Miscellaneous	7,841	5,513	5,635	122	.....	.....	2,206
Total ...	78,46,236	93,74,010	97,51,850	4,25,303	17,463	20,94,315	68,701

It will be observed that of the net increase of Rs. 4,07,840, country spirits contributed only about half (Rs. 2,06,000), while opium and ganja contributed nearly half (Rs. 1,95,000). An examination of the returns further shows that of the increase of Rs. 2,06,000 under country spirits, only Rs. 1,18,000 was derived from licenses issued under the outstill system, Rs. 88,000 coming from still-head duty, fees, &c., in the comparatively small tract administered under the sunder distillery system.

4. The total number of shops licensed for the sale of *Country Spirits* was only 4,560 against 5,780 in 1881-82 and 6,284 in 1880-81. Of these, 466 were licensed under the sunder distillery system and 4,094 were licensed under the outstill system, against 530 and 5,250 respectively in the previous year. The central distilleries were closed in Nuddea, in the Bhuddruck sub-division of Balasore, and in Ranchi; nevertheless, though the area was thus reduced, the quantity of duty-paying spirit consumed in the tracts under this system rose from 342,304 gallons to 355,651 gallons. The sunder distillery system is now retained only in Calcutta, and the Suburbs and Howrah, and their environs, the Sudder and Serampore sub-divisions of Hooghly, the Sonthal Pergunnahs, the Sudder stations of the three Orissa districts and their environs, and Giridhi in Hazaribagh, where there is a large mining population. The largest reductions in the number of outstill shops were made in Monghyr (434 to 203), Bankoora (256 to 125), Burdwan (224 to 111), Patna (250 to 173), Gya (307 to 220), Shahabad (219 to 157), Bhagulpore (264 to 180), and Sarun (225 to 162). In some cases these reductions led to a large decrease in revenue, as in Bhagulpore (Rs. 36,766), Patna (Rs. 21,916), and Shahabad (Rs. 8,368); in others the redistribution appears to have been more judiciously made, and the result was an increase, as in Burdwan (Rs. 25,153), Sarun (Rs. 21,637), and Gya (Rs. 26,006). The ratio of population to each retail license ranged from 6,223 in the Chota Nagpore Division, where the population is sparse, to 35,075 in the Chittagong Division. The provincial average was 14,603. The only districts outside the Chota Nagpore Division, where the proportion was below 10,000, were Hooghly and Monghyr (9,703), Gya (9,657), Maldah (9,108), Bankoora (8,334), and Darjeeling (5,005).

5. The question of the effect of the outstill system on the consumption of liquor and the habits of the people has engaged the special attention of Government for some time. The Board have now reiterated their opinion that "the charges made against the outstill system with reference to its alleged tendency to demoralize the people" have not been substantiated; and undoubtedly the great preponderance of the views of the local officers is to the effect that the increase in the consumption of liquor, which has certainly taken place, is due to the increased prosperity of the people and to the circulation of wealth rather than to any special facilities afforded by the operation of the outstill system. "It must be borne in mind," writes the

Commissioner of the Presidency Division, "that easy prices and high wages of labour in Calcutta and its vicinity have also contributed to the increase of drunkenness, which is so much complained of." The correctness of this observation is borne out by the returns now before Government. The quantity of duty-paying country spirit consumed in Calcutta, Suburbs and Howrah was 226,902 gallons in 1882-83 against 205,901 gallons in 1881-82. In the Howrah district, and the Serampore and Hooghly Sudder sub-divisions, where the sudder distillery system is in force, the consumption increased from 28,616 gallons to 33,723 gallons, though the selling price of the liquor must have been higher than in the previous year, as, with a reduction in the number of shops from 139 to 131, there was an increase in the fees paid for licenses from Rs. 40,168 to Rs. 47,768. In the Jehanabad sub-division of Hooghly district, where the outstill system is maintained, the fees for licenses increased at the same time only from Rs. 21,203 to Rs. 24,461. In the suburban tract of the 24-Pergunnahs, where only shops supplied from sudder distilleries are allowed, there was an increase in consumption from 11,852 gallons to 18,818 gallons, and in the fees paid for licenses from Rs. 18,820 to Rs. 20,081, while in the adjoining tract served by outstills there was a falling off in the license-fees from Rs. 84,107 to Rs. 72,756. These figures establish beyond any doubt the fact that a large increase in the consumption of liquor has taken place altogether independently of any operation of the outstill system. The large increase in the amount paid for ganja and opium, accompanied, as will be seen further on, by a considerable decrease in the quantity of the former drug actually consumed, similarly shows that the people have more money to expend upon exciseable articles. The Lieutenant-Governor is not prepared to deny that there has, at the same time, been a large increase in the consumption of liquor in the tracts under the outstill system; indeed, there is undoubted evidence that in some districts such an increase has taken place. But the figures given above show the error of concluding that the increase is necessarily the result of the working of this system. The only evidence, indeed, which the returns present of a possibly faulty administration of the outstill system is the comparatively small increase of revenue obtained under it. If the increase in the consumption of liquor in the outstill tracts had at all kept pace with the increase in the area under the sudder distillery system, the increase in revenue from the former should have been much larger than Rs. 1,18,000, when an increase of Rs. 88,000 was obtained in the latter. The population supplied by sudder distillery shops does not exceed 3 millions, while over 63½ millions are supplied by outstill. This seems to show that there is still a large margin for the levy of revenue,—and consequent increase in the selling price of liquor,—under the outstill system, and that in some districts the arrangements for exacting the highest prices for licenses, consistent with the discouragement of illicit distillation, are still far from complete. The results of the settlement of excise licenses for the current year seem to promise a larger increase; but a serious inequality will still be apparent. At the same time the Lieutenant-Governor is very far from considering that because we have not yet been able to secure, under the outstill system, that ideal point of balance at which the maximum of revenue is obtained with no encouragement to smuggling, we should therefore revert to the sudder distillery system. All the evidence available goes to show that in the rural tracts of this province it would be still more difficult to attain the object in view under that system. A remarkable instance of its unsuitability is given in the following extract from the report of Mr. Trevor Grant, Collector of Balasore:—

"I notice that, besides the eight shops in the municipality itself, there is not a single country spirit shop in the whole of the large stretch of country included between the Pachpara river and Soro—a distance of over 30 miles in length, with an area of, say, 400 square miles. The excise map has a very curious aspect with its northern and southern portions well dotted over with shops, while the central portion is absolutely bare. I find that the sales from the eight shops (which are supposed to supply the entire thana of Balasore) are absolutely insignificant except within the town. All attempts to open shops in the shopless area have failed; but it cannot be supposed that the residents consume less or are in less need of shops than the people living elsewhere. I cannot doubt that in fact they obtain liquor directly from the neighbouring tributary mehals."

A comparison of the excise statistics of 20 years ago with those of the present time brings out very strongly the inefficiency of the fixed duty system, if applied beyond certain limits, and the increase which has taken place in the spending power of the people:—

Year.	Fixed duty system.	Outstill system.	Total number of shops.	Revenue. Rs.
1863-64	1,741	6,655	8,396	19,31,566
1864-65	5,669	3,486	9,155	17,77,068
1882-83	466	4,094	4,560	48,26,298

It will be observed that, with a large increase in the number of sunder distillery shops, and a large decrease in the number of outstill shops in 1864-65, the total number of shops being considerably increased, there was a falling off in the revenue. In 1882-83, on the other hand, the total number of shops was just half what it was in 1864-65, and the number of outstill shops was much the same, but the revenue was nearly three times as great. All experience goes to show (1) that the sunder distillery system is only suited to very thickly populated tracts; (2) that the increase in wealth, which has resulted from good harvests and the opening up of communications, has created a large demand for country spirit, as well as for other exciseable articles, among the people, and that our efforts must be directed to supplying that demand under some other system, which shall legitimately meet it without stimulating it. The Lieutenant-Governor has given this question his close personal attention during his recent tour, and he has satisfied himself that in some districts the increase in drinking is greater than the increase of revenue, if properly distributed, would indicate, and he proposes to appoint a Special Commission to consider and report upon the subject in all its aspects after careful local enquiry. The attention of the Commission will be directed to the number and position of outstills, the rate of upset prices, the enforcement of the conditions of licenses in regard to the maximum capacity of stills, the restriction of manufacture and sale to specified hours, and the like, and generally to all circumstances likely to affect the facilities for obtaining liquor and to cause undue lowering of its price.

6. The number of wholesale licenses for the vend of *Rum* was the same (18) as in the previous year, while the number of retail licenses fell from 125 to 115. The total quantity of rum of local manufacture passed for consumption was 13,847 gallons against 15,253 gallons in 1881-82, and the total decrease of revenue amounted to Rs. 9,083. The falling off is attributed partly to the displacement of this liquor by ordinary country spirit, and partly to the competition of imported rum. The quantity obtained from Shahjehanpore again shows a falling off, but the Board for the first time report considerable imports from Madras and from foreign countries. The quantity imported from Madras, Cuddalore, and Gopalpore was 10,543 gallons, while 6,054 gallons came from foreign ports, 3,834 gallons being supplied by Hongkong alone. The duty on Shahjehanpore rum sold in Bengal is now credited to the funds of this Government. It will be necessary to consider whether some similar adjustment should not also be made in regard to rum imported from elsewhere. The Board will be requested to submit a special report on this subject.

7. That portion only of the revenue from *Imported Spirits and Wines*, which is represented by license-fees, is credited to Provincial revenues. The amount thus levied was Rs. 1,94,090 against Rs. 1,83,812 in 1881-82. The number of licenses issued was, however, only 951 against 941.

8. There was an increase of 323 in the number of licenses for the sale of fermented *Tari*, and a decrease of 280 in the number of licenses for the sale of the unfermented liquor. The revenue, however, showed a net decrease of Rs. 4,307. The receipts from unfermented tari are unimportant. The Dacca Division contributed Rs. 12,918 out of the total revenue of Rs. 19,996, and the Lieutenant-Governor has since the close of the year exempted the unfermented liquor from the operation of the law in this Division; elsewhere it is necessary to maintain the provisions of the law in order to protect the revenue from fermented tari. Licenses for the sale of fermented tari produced a considerable increase of

revenue in Hooghly, 24-Pergunnahs, Calcutta and Sarun; in Patna, Gya, Durbhunga, Chumparun and Pooree there was a falling off. The Commissioner of Patna believes that the revenue from tari has almost reached its highest point, and that the owners of *tal* trees have raised the rent so as to leave but a small margin of profit to the passis who tap them.

9. The number of licenses for the sale of *pachwai* rose from 2,135 to 2,159, and there was an increase of Rs. 12,348 in the revenue. The increase was chiefly obtained in the Burdwan Division, Burdwan itself contributing Rs. 6,414, Beerbboom Rs. 2,518, and Bankoora Rs. 1,883. The explanation given from Burdwan is that the licensees of outstills have competed for the *pachwai* shops. In Beerbboom the increase is attributed to the breaking up of a local ring, and in Bankoora it is referred to the reduction in the number of outstills. The Commissioner has drawn attention to the conflicting nature of the information supplied by different district officers regarding the causes which affect the revenue from this source, and the Lieutenant-Governor has, at his instance, and on the recommendation of the Board, recently sanctioned the deputation of a Special Sub-Deputy Collector to enquire into the subject in this Division.

10. The results of the year's administration under the head of *ganja* were very satisfactory. The duty was raised in all divisions, except Orissa (where the introduction of Gurjat *ganja* has to be guarded against), by one rupee per seer on each description of the drug. At the same time the Board made a careful examination of the actual requirements of each district in regard to shops, and reduced the number from 3,488 to 3,271. The results of these measures are apparent in the following figures:—

			Average of 1877-1882.	1881-82.	1882-83.
Number of shops	...	...	3,316	3,488	3,271
Quantity consumed	...	...	Mds. s. c. Mds. s. c. Mds. s. c.	6,144 6 2 6,431 9 6 5,645 36 14	
License-fees	...	...	Rs. Rs. Rs.	5,90,296 7,55,632 7,95,223	
Duty	...	...		8,42,366 9,58,159 10,65,274	
Total	...		14,32,662	17,13,791	18,60,497

Thus with an increase of Rs. 1,07,000 in the duty levied, there was a decrease of 785 maunds in the quantity consumed; and with a decrease of 217 in the number of shops licensed, there was an increase of Rs. 40,000 in the amount of license-fees collected. The average revenue per maund levied on this deleterious drug was Rs. 329 against Rs. 266 in 1881-82 and Rs. 233 in the five years 1877-1882. Some officers have recommended a further increase in the duty, but the Board have considered it prudent to postpone such a measure for the present lest smuggling should be encouraged. The Lieutenant-Governor will be glad to know if the local officers recommend another enhancement at the close of the current year. The most important difficulty that besets this branch of the Excise administration is the competition of untaxed *ganja* from the Tributary States of Orissa. The Commissioner of Burdwan is now engaged on an enquiry into this question so far as it affects the revenue in the Midnapore district. There are also indications that there is considerable smuggling into the regulation districts of Orissa. The Lieutenant-Governor trusts that the Board will not cease to direct their attention to this matter.

11. The price of *Opium* issued from the treasuries was unaltered during the year. There was an increase of 79 maunds in the quantity consumed, and an increase of Rs. 48,319 in the combined revenue from duty and license-fees, though there was a decrease of 54 in the number of licenses to sell. In Hooghly district, where there was a falling off of 41 in the number of shops, there was an increase in the quantity of Government opium consumed, and an increase of Rs. 3,457 in the revenue. This increase is not believed to represent any actual increase in the consumption of the drug: it is attributed to the suppression of smuggling, resulting from the arrest and conviction of two noted offenders. An increase of 54 maunds 17 seers in Calcutta is referred partly to the suppression of smuggling, and partly, it is hoped correctly, to the displacement of *ganja*. There was an increase in the revenue in Dacca of

Rs. 4,891. This mainly represented increased payment of duty, but the license-fees were not proportionately large, owing to the surrender of 9 licenses in consequence of the competition of one enterprising shop-keeper. Chittagong shows a large increase of 20 maunds 23 seers in the consumption and Rs. 10,691 in the revenue. The amount levied from license-fees shows an actual decrease of over Rs. 6,000, and this seems to bear out the statement of the Collector that the increase in the quantity purchased is due to the extension of smuggling into Arrakan. The Board have this matter under consideration. The increase of 18½ maunds on which duty was paid in the Patna Division is satisfactory, as it undoubtedly represents, not increased consumption of opium, but increased consumption of duty-paying opium only. This result is attributed to the system of small shops inaugurated by the Board. There was an increase of 4 maunds 17 seers in Cuttack, which is believed to represent the natural growth in consumption of a drug which is always popular with the people. The decrease of 3 maunds 11 seers in Balasore is attributed by one officer to over-speculation on the part of the vendors in the previous year, by another to the operation of the enhancement of duty in 1880. It is believed to represent an actual reduction of consumption, and Mr. Grant believes that the place of the opium has been supplied by ganja. The decrease of 8 maunds 18 seers in Rungpore and of 7 maunds 32 seers in Mymensingh is attributed to the increase in the rate of duty.

12. On the whole, the returns show a falling off in the activity both of Police and of Excise Officers in the detection of breaches of the law. The number of persons brought to conviction by the former was 1,946 against 2,284 in the previous year, and by the latter was 756 against 983. The Police were active only in the 24-Pergunnahs (where the District Superintendent, Mr. Pratt, is deservedly commended), Moorshedabad, Durbhunga, Hooghly, Beerbboom and Chumparun. The Police of Bankoora, Rungpore, Bogra, Pubna, Julpigoree, Tipperah and Maldah, on the other hand, appear to have altogether neglected their duty in this respect, and the Inspector-General of Police will be requested to take due notice of their shortcoming. The Divisional Excise Inspectors appear to have given satisfaction.

13. The names of the officers selected by the Board for special mention will be noted in the Appointment Department. The Lieutenant-Governor desires to thank the Board for their careful and efficient administration of the Excise Department during the year.

By order of the Lieutenant-Governor of Bengal,

COLMAN MACAULAY,

Secretary to the Government of Bengal.

ERRATA.

Returns of Joint Stock Companies for 1882-83.

IN modification of the errata published at page 1149 of the Supplement to the *Calcutta Gazette* of 1st August 1883, the following revised errata is published for general information:—

RETURN I.

Number on this list.	Number borne by each company on the general register.	Name of each company.	Object of each company.	Date of registration.	Nominal capital.	REMARKS.
5	438	Bengal Purveying Company, Limited.	To carry on the business of purveyors.	27th April 1882	Rs. 50,000	

RETURN III.

Number on this list.	Number borne by the Company on the Register.	Names of companies.	Nominal capital.	Date of registration.	Date of winding up.	Date of final dissolution.	Date on which written off defunct.	REMARKS.
1	215	Darjeeling Terai Tea Company, Limited.	Rs. 1,00,000	28th October 1867	30th May 1882	30th May 1882		
2	403	New Oriental Jute Mills Company, Limited.	Rs. 6,65,000	29th May 1880	2nd August 1880	Ditto.		

RETURN VI.

Number on this list.	Number of registered companies by each company.	Names of companies.	Dates of registration.	Nominal capital.	Paid up capital.	PROFIT OR LOSS AS PER LAST BALANCE SHEET.		Date of last balance sheet.	REMARKS.
						Profit.	Loss.		
14	89	Dehra Doon Tea Company, Limited.	31st March 1863.	Rs. 20,00,000	Rs. 8,78,000	Rs. 22,417	.....	31st December 1881	
38	221	Hong-Kong and Shanghai Banking Corporation.	7th April 1869	Rs. 1,12,50,000	Rs. 1,12,50,000	Rs. \$ 764,797	.....	30th ditto 1882	Capital \$ 5,00,000. Profit \$ 764,797 33.
39	224	Nutwanpore Tea Company, Limited.	8th January 1870.	Rs. 4,00,000	Rs. 4,00,000	Rs. 45,190	.....	31st ditto "	
46	235	Majagram Tea Company, Limited.	27th January 1872.	Rs. 2,00,000	Rs. 1,75,000	Rs. 3,874	.....	31st ditto "	
50	244	Bowreah Cotton Mills Company, Limited.	7th August 1872.	Rs. 18,00,000	Rs. 18,00,000	Rs. 31st August "	.....	31st August "	
157	405	Union Jute Company, Limited.	5th October 1880.	Rs. 9,00,000	Rs. 6,75,000	Rs. 1,48,016	.....	31st "	

Rainfall, Weather, and State and Prospects of the Crops.

Statement showing Rainfall, Weather, and State and Prospects of the Crops in the different Districts of Bengal, as reported to Government during the week ending the 13th October 1883.

No.	District, and date of return.	Rainfall at Sudder Station in inches.	Character of the weather, state and prospects of the crops, and state of health at date.
BENGAL.			
	<i>Western Districts.</i>		
1	Burdwan, Oct. 13 '83	0.22	Weather—very hot. The slight amount of rain that has lately fallen in some parts of the district has been of no appreciable benefit to the crops which are now beginning to wither even in the low lands. Prospects bad.
	Cuttia	Nil	
	Culna	Nil	
2	Bankura, " 13	Nil	Weather—continues hot, with cool mornings. Clouds hanging about. The rice crop is suffering seriously for want of rain. Prices rising. Public health good.
	Bishenpore	Nil	
	Maliara	Nil	
	Khatra	Nil	
3	Beerhoom, " 13	Nil	Weather—hot and dry. Cloudy on the last two days of the week. Rain urgently wanted for the rice crop, which is suffering much from drought. Prices stationary as yet. General health satisfactory.
	Rampore Haut	Nil	
4	Midnapore, " 13	A slight shower on 13th.	Weather—cloudy. Want of rain is keenly felt everywhere. Prospects of crops unfavourable. Public health fair.
5	Hooghly, " 13	0.09	Weather—alternately cloudy and sunny throughout the week. Rain is badly wanted all over the district, and the prospects of the <i>amun</i> crop are critical. Unless it rains heavily soon, this and the potato crop will suffer severely. There is fever in various parts of the district, and some cases of cholera in Hooghly and Chinsurah towns.
	Howrah, " 15	0.47	Weather—warm and cloudy with a few slight showers. <i>Amun</i> rice and sugarcane suffering from want of rain. Land being prepared for cold-weather crops.
	Oolooberiah	1.71	Rain much needed both for the standing crops, and those for which the soil has to be prepared.
	<i>Central Districts.</i>		
6	24. Pergunnahs, Oct. 15	0.17	Weather—dry and hot. Early crops nearly all harvested. A heavy downpour of rain would entirely undo all the harm done the crops on the high lands by the dry and hot weather experienced.
7	Nuddea, " 13	Nil	Weather—fine and cool. The <i>amun</i> is greatly suffering from want of rain everywhere. Fever stationary.
	Kooshtea	0.06	
	Meherpore	Nil	
	Chooadanga	Nil	
	Ranaghat	Nil	
8	Khoolna, " 13	0.07	Weather—very hot in first part of the week. Cloudy with a few drizzling showers latterly. The reports do not shew that the late rice crop has been much injured, but more rain is wanted. Public health is good.
9	Jessore, " 13	Nil	Weather—sultry and foul. Twelve annas <i>amun</i> on high lands in the Sudder and Jhenida sub-divisions almost destroyed in consequence of drought. Expected outturn is 4 annas. Prospects of low land <i>amun</i> are not still bad in Narail, Magura, and Bongong. Four annas are reported to have been damaged. The sky is to day (13th) at 2 P.M. replete with clouds. Heavy shower, which is expected, would save half the crop. General health good.
10	Moorschedabad, " 13	Nil	There has been no rain. Weather cloudy and threatening, especially during the last two days. Hot and sultry; mornings cool. The paddy is fast drying up for want of rain.
11	Dilagepore Oct. 12 '83	Nil	Weather—fair. Rain wanting, but prospects fair. A little rain now would make prospects good.
12	Rai Bahye, " 13	0.31	Weather—very hot. Late rice is suffering for want of rain. It is reported that the <i>amun</i> crop within the Charchat police station has been irrecoverably damaged. Public health fair.
	Nattore	Nil	
	Nowgong	0.30	
13	Rungpore, " 12	Nil	Weather—hot. Rain much wanted for <i>amun</i> crop, especially in the Gaibanda sub-division and in the south of the Sudder sub-division. Other winter crops are promising. Fever prevalent.
	Gaibanda	Nil	
	Kurigram	Nil	
	Nilphamari	Nil	
14	Bogra, " 13	Nil	Clouds have appeared, but no rain has fallen. The last shower fell on 28th ultmo. Weather still very hot. The state and prospects of the <i>aus</i> crop are very bad, as the transplanted rice is withering for want of rain. Public health is fair.
15	Pubna, " 13	0.02	Weather—cooler. Slight rain, more wanted. <i>Amun</i> rice suffering generally from want of rain. Sugarcane and turmeric doing fairly well.
16	Darjeeling, " 13	Nil	Weather—bright. Early harvest complete with fair outturn, better in hills than in Terai. Late rice is doing well in the hills, but wants rain badly in the Terai.
17	Jalpigoree, " 13	Nil	Weather—seasonable. State of crops good. Transplanting of late rice nearly over. <i>Thakuri</i> and <i>kulti kallai</i> promising. Sugarcane good. Public health good.
	Cooch Behar up to 10th Oct.	0.10	Weather—fair and seasonable. Fields being prepared for tobacco and other cold-weather crops. Prospects of late rice favourable. Public health good.
	Dinhatta	Nil	
	Mathabhanga up to 6th Oct.	0.59	
	Mecklunge up to 6th Oct.	0.92	
	<i>Eastern Districts.</i>		
18	Dacca, Oct. 13 '83	1.62	Weather—hot. Harvesting of <i>aus</i> and <i>ashini</i> paddy continues. Jute is still being cut. <i>Amun</i> blossoming. Prospects of crops good.
	Manickgunge	Nil	
	Munshigunge	Nil	
19	Farradipore, " 13	0.03	Weather—dry and hot. Some appearances of rain during the last three days. State and prospects of sugarcane very fair, but of <i>amun</i> poor. Rain is seriously needed. Fever rather prevalent.
	Gosulundo	0.12	
	Madaripore	Nil	
20	Bakergunge, " 11	Nil	Weather—hot and clear. Prospects of crops good. General health good. Rain falling at time of report.
21	Mymensingh, " 12	Nil	Weather—hot; cloudy sky. Rain is wanted everywhere. Winter rice promises well. Rivers fallen. Public health good.
	Kishoregungs	Nil	
	Attea	Nil	
	Netrokona	Nil	

No.	District, and date of return.	Rainfall at Sudder Station in inches.	Character of the weather, state and prospects of the crops, and state of health at date.
BENGAL.—concl'd.			
CHITTAGONG DIVN.	<i>Eastern Districts.—concl'd.</i>		
	22 Chittagong, Oct. 16 '83	3.16	Weather—seasonable. Prospects favourable. Rain has done good to standing crops. Prices steady. Cattle-disease ceased.
	23 Noakholly, " 11 "	Nil	Weather—clear and sultry. Young <i>amun</i> plants promising. Transplanting still continues.
	24 Tipperah, " 11 " <i>Brahmanberia</i> ..	Nil	Weather—fair and hot. <i>Amun</i> crop good. Prospects bright. Health good.
	Chandpore ..	Nil	Cattle-disease prevalent in south.
	25 Chittagong Hill Tracts, ..	Nil	Report not received.
PATNA DIVN.	Hill Tipperah " 10 "	Nil	Weather—rather too hot for the season. <i>Amun</i> and sugarcane doing well. Public health good.
	BEHAR		
	26 Patna, Oct. 13 '83	Nil	Weather—hot. Rain is much wanted for paddy. <i>Jowar</i> , <i>rahar</i> , sugarcane and cotton are growing well. Plantation of potato is going on. Cholera still reported from Barh and Behar sub divisions.
	27 Gya, " 13 "	Nil	Weather—warm and dry with haze. Rice crop very bad. <i>Rubbee</i> cultivation hindered by want of rain. Prices rising. Health good. Cholera almost gone.
	28 Shahabad, " 13 "	Nil	Weather—mornings and evenings cool. The <i>hatia</i> , or season when rain is required to ripen the crop, having proved dry, the rice is perishing, except on land irrigated from the canal. The whole of the canal water is being utilized, and the supply is insufficient for the area supposed to be commanded.
	29 Durbhunga, " 13 '83	Nil	Weather—hot in the day, getting cool at night. Rain is very much wanted, especially to save the rice crop on the high lands. Irrigation is being resorted to. Prices have risen. If no more rain falls, there will be only an eight-anna crop throughout the district.
BAGHESHWAR DIVN.	30 Mozaffarpore, " 13 " <i>Seetamarhi</i> ..	Nil	Weather—sky partially overcast, but rainless. <i>Bhadoi</i> harvest completed, with results on the whole below the average. Rain badly wanted for the rice crop. In Seetamarhi prospects becoming gloomy day by day.
	31 Saran, " 13 " <i>Sewan</i> ..	Nil	Weather—dry; days hot; nights cool; clouds hanging about, but no rain. Rain anxiously awaited. Paddy crop suffering, and <i>rubbee</i> sowings delayed, for want of rain. Public health good. Prices still easy.
	Gopalgunge ..	Nil	
	32 Chumpanur, " 13 "	Nil	Weather—dry and hot, with occasional clouds. Cooler in the latter part of the night. The protracted drought causes grave anxiety. In some places there is not sufficient moisture in the soil to permit of the <i>rubbee</i> crop being sown. The <i>dhan</i> in most places requires rain. <i>Bhadoi</i> is being harvested, but the outturn has been far below an average one.
	33 Monghyr, Oct. 13 '83 <i>Beguserai</i> ..	Nil	Weather—hot and dry. Prospects of crops generally good, but the winter rice on the high lands is suffering from the drought. Rain is much required everywhere, and a good shower will improve prospects. Prices rising. Public health good.
	<i>Jamui</i> ..	Nil	
ORISSA DIVN.	34 Bhagulpore, " 13 "	Nil	Weather—unusually hot in day, cool in the mornings. On 11th and 12th it was cloudy and the wind was variable, but on the 13th the sky cleared. The rice crop on the higher lands has suffered much. The low-land crop has also suffered, and the outturn will probably not exceed eight annas. The price of rice has risen considerably. There is little or no moisture for the <i>rubbee</i> sowings.
	35 Purneah, " 13 "	Nil	Weather—hot by day, cool by night. Prospects of crops still reported good in Kissengunge, but more rain wanted in Arrsreak, and more still in the Sudder sub-division. The absence of rain during the past week has been generally injurious to the late rice crop. The weather is now cloudy. <i>Rubbee</i> cultivation is going on as usual. Fever prevails everywhere.
	36 Maldah, " 13 "	Nil	Weather—hot and cloudy. Heavy rain is much wanted for the late rice crop. Common rice selling at from 16 to 18 seers per rupee. General health good.
	37 Sonthal Perghs, " 14 " <i>Deoghur</i> ..	Nil	Weather—days clear, bright, and hot, till Thursday evening (11th), when clouds began to form; nights cool, mornings dewy. Rain urgently wanted, especially for the up-land <i>dhan</i> . Irrigation will sustain considerable area, but the crop not protected are suffering, and the <i>rubbee</i> lands cannot be prepared for sowing.
	<i>Godda</i> ..	Nil	
	<i>Rajmehal</i> ..	Nil	
ORISSA DIVN.	<i>Jamtara</i> ..	Nil	
	<i>Pakour</i> ..	Nil	
	38 Cuttack, Oct. 12 '83	Nil	Weather—hot. Cutting of <i>beali</i> crop still going on; <i>sarad</i> being weeded and growing well, but rain urgently wanted. Price of rice increasing. Public health good, except some scattered cases of ordinary fever. Cattle-disease reported to have appeared in some places of Kendrapara sub-division.
	39 Pooree, " 11 "	0.17	Weather—hot. State of crops good, but rain is wanted. Public health fair. Price of rice stationary.
	40 Balasore, " 12 "	Nil	Weather—hot and dry, but cloudy at intervals. Harvesting of <i>aus</i> crop nearly over. Rain very much wanted for <i>amun</i> . A heavy fall, say, 4 to 5 inches in the next few days would, probably, still ensure a 12-anna crop; but if no more rain falls the <i>amun</i> harvest must be most seriously affected. A great deal depends on the weather of the next week. Public health good.
	CHOTA NAGPORE.		
<i>South-West Frontier Agency.</i>			
41 Hazaribagh, Oct. 12 '83	Nil	Want of rain is keenly felt all over the district for the standing rice crop which has already suffered a great deal. Public health good.	
42 Lohardugga, " 13 "	Nil	Weather—bright and warm. Winter rice on high lands suffering from want of rain. <i>Rubbee</i> sowings in Palamow prevented from same cause. Slight fever prevalent. Prices steady.	
43 Singhbhum, " 12 "	Nil	Weather—days warm, mornings and evenings cool. Prospects of crops generally good, but more rain is wanted. Fever and cattle-disease reported from several villages. Otherwise public health good.	
44 Manbhum, ..	.....	Report not received.	

Published for general information.

Meteorological Report of the Province of Bengal

METEOROLOGICAL DIVISION.		DISTRICT.	Representative station.	STATION OBSERVATIONS.													
				AIR PRESSURE.			WIND.		TEMPERATURE.								
				Mean barometric height, 10 A.M.	Mean reduced to sea-level.	Variation from mean.	Prevailing direction.	Mean wind velocity.	Highest during week.	Lowest during week.	Mean maximum temperature.	Mean minimum temperature.	Mean daily temperature of week.	Variation from normal mean of week.	Mean 10 A.M. temperature.	Average humidity at 10 A.M.	Average cloud amount at 10 A.M. for week.
ORISSA.	Pooree	Gopalpore	...	29°831	29°881	—	NW	93	88°6	78°8	87°9	79°7	83°8	—	85°2	70	74
	...	False Point	...	29°836	29°877	0	WNW	82	93°5	73°6	92°6	76°0	84°3	+1°1	82°2	67	57
	Cuttack	Cuttack	...	29°799	29°880	+011	Calm	21	94°9	74°8	93°9	70°2	85°1	+2°0	88°7	64	21
	Balasore	Balasore	...	29°816	29°875	—	NNW	31	94°0	72°9	93°4	74°0	83°7	—	86°5	63	03
	South-West Midnapore	Saugor Island	...	29°845	29°871	-009	NW	123	91°2	75°0	90°3	78°9	84°6	+2°2	85°6	71	46
	South 24-Pergunnahs	Midnapore	...	29°754	29°887	—	NW	—	91°5	71°2	89°1	73°0	81°1	—	88°6	57	16
	24-Pergunnahs	Midnapore	...	29°850	29°871	+002	Variable	62	92°5	73°2	91°3	76°6	84°0	+0°9	85°9	67	26
	Howrah	Calcutta	...	29°850	29°871	+002	Variable	62	92°5	73°2	91°3	76°6	84°0	+0°9	85°9	67	26
	Hooghly	Burdwan	...	29°779	29°829	-001	Variable	34	95°1	73°9	93°8	75°0	84°4	+1°6	87°0	60	17
	Bankura	Bankura	...	29°830	29°871	-001	Variable	34	95°1	73°9	93°8	75°0	84°4	+1°6	87°0	60	17
SOUTH-WEST BENGAL.	Beerbhoom	Ranigunge	...	29°484	—	—	NW	72	93°5	73°0	93°3	76°3	84°8	—	86°3	60	07
	West Burdwan	Burdwan	...	29°830	29°874	-004	Calm & Variable	497	93°7	74°3	93°1	75°2	84°1	+0°7	86°7	66	14
	Moorsheadbad	Berhampore	...	29°806	29°874	-004	Calm & Variable	497	93°7	74°3	93°1	75°2	84°1	+0°7	86°7	66	14
	Nuddea	...	...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Jessore	Jessore	...	29°838	29°871	-008	SE & W	51	94°8	74°9	93°3	76°5	84°9	-1°7	87°5	72	36
	Khoolna	Khoolna	...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Chittagong	Chittagong	...	29°802	29°892	0	NE	55	93°2	73°5	87°3	75°6	81°5	-0°5	81°5	82	66
	Chittagong Hill Tracts	Demagri	...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Backergunge	Barrisal	...	29°830	—	—	N	310°6	89°9	71°4	85°4	75°7	80°6	—	84°1	88	26
	Noakholly	Noakholly	...	29°832	29°871	—	V	20°8	90°8	74°0	89°5	76°7	83°1	—	84°3	78	47
EAST BENGAL.	Furreedpore	Furreedpore	...	29°832	—	—	Calm	77°9	90°5	75°4	88°6	77°1	82°9	—	85°0	74	17
	Dacca	Dacca	...	29°829	29°865	+015	N	45	91°8	74°1	90°1	77°6	83°9	-0°5	86°7	75	41
	Commillah	Commillah	...	29°824	29°860	—	ENE & SE	—	91°1	73°3	85°7	75°8	80°8	—	85°3	73	39
	Mymensingh	Mymensingh	...	29°836	—	—	Calm	106	92°3	75°1	90°7	76°0	83°4	—	85°7	77	41
	Bogra and Pubna	Sersajunge	...	29°820	—	—	Variable	63	94°4	74°7	91°4	75°8	83°6	—	85°9	71	39
	Rajshahye	Rajshahye	...	29°781	29°856	—	NE	62	98°6	71°6	91°9	73°7	82°8	—	86°1	69	43
	Dinagepore	Dinagepore	...	29°743	29°862	—	NE, NNE	52°1	92°6	73°1	92°2	75°9	84°1	—	86°7	66	49
	Rungpore	Rungpore	...	29°766	29°891	—	NE	51	92°8	73°6	91°7	74°7	83°2	—	85°7	73	69
	Julpigoree	Julpigoree	...	29°587	29°876	—	ENE	86	90°0	70°1	89°1	72°5	80°9	—	84°2	72	64
	Cooch Behar	Cooch Behar	...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
NORTH BENGAL.	Darjeeling Hill Districts	Darjeeling	...	23°014	—	—	E	126	65°1	49°6	63°5	50°6	57°0	—	59°4	84	66
	Purneah	Purneah	...	29°744	29°872	+007	Calm	0	92°2	69°9	91°1	73°0	82°1	+0°3	86°4	69	20
	Mozufferpore	...	...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Durbhunga	Durbhunga	...	29°723	29°801	-065	ESE	34	92°4	72°5	90°5	75°9	83°2	+3°2	84°4	79	19
	Chumparun	Motihari	...	—	—	—	E & V	89	87°1	65°8	84°5	71°8	78°2	—	85°1	69	34
	Sarun	Chupra	...	29°681	—	—	Calm	7	95°0	68°5	91°1	73°6	82°4	—	83°7	95	19
	Dehree	Dehree	...	29°550	29°904	—	SW	—	90°4	70°0	88°2	73°9	81°0	—	87°1	42	14
	Shahabad	Buxar	...	29°640	29°890	—	WNW	79	96°9	69°8	94°7	72°8	83°6	—	92°2	40	24
	Gya	Arrah	...	29°654	29°850	—	SW	51	95°4	67°7	92°7	70°6	81°7	—	86°0	51	26
	Patna	Gya	...	29°487	29°863	—	Calm	34	96°3	61°2	95°9	64°2	80°1	-0°9	91°7	43	13
CHUTIA NAGPUR.	South Bhagulpore	Bankipore	...	29°691	29°874	-003	SW & V	38	96°5	72°2	94°6	74°1	84°4	+3°1	87°8	52	27
	Moughyr	Bhagulpore	...	29°669	29°863	—	NW & V	38	93°9	71°0	92°5	71°7	82°1	—	88°4	54	07
	Sonital Pergunnahs	Doomka	...	29°367	—	—	NW & V	—	93°1	69°3	92°5	70°6	81°6	—	85°0	74	04
	Hazaribagh	Hazaribagh	...	27°889	29°880	+029	NNW	134	89°5	66°7	88°6	68°9	78°7	+2°8	84°0	30	19
	Lohardanga	Ranches	...	27°776	29°879	—	—	—	89°2	66°4	88°2	68°1	73°2	—	84°6	37	04
	Manbhopem	...	...	—	—	—	Calm	—	—	65°8	—	69°5	—	—	81°8	59	09
	Singhlihoom	Chyehassa	...	29°109	—	—	—	—	—	—	—	—	—	—	—	—	—

Explanation of Summary.—The normal means of air pressure and temperature are the arithmetical averages or means of the readings during the observations, rainfall, the normal means are the numerical means or averages of the rainfall in that district determined from the returns sent in by the sub-divisions from that district, (i.e.) the total rainfall at the sub-divisional stations in the district sending in returns divided by the number of stations. A

or the week ending Friday, the 12th October 1883.

Week as observing stations.	DISTRICT OBSERVATIONS.										Representative station.	DISTRICT.	METEOROLOGICAL DIVISION.			
	RAINFALL.															
	Of week.		Since 1st of month.			Since 15th May.			Average number of rainy days.	Normal number of rainy days.						
Mean for district.	Normal mean.	Mean for district.	Normal mean.	Variation.	Mean for district.	Normal mean.	Variation.									
0.06	0.19	1.80	0.44	3.34	-2.90	57.32	48.72	+8.60	1.0	2.3	Gopalpore	...	Orissa.			
	Nil	1.76	Nil	2.83	-2.83	56.25	46.79	+9.46	—	2.3	False Point	...	Pooree			
	0.05	1.90	0.05	2.91	-2.86	49.15	49.78	-0.63	0.3	2.2	Cuttack	...	Cuttack			
	0.29	1.40	0.46	2.58	-2.12	49.83	55.68	-5.85	0.5	2.3	Balasore	...	Balasore			
	0.37	1.20	0.37	1.90	-1.53	39.65	47.47	-7.82	0.3	1.8	Saugor Island	...	South-West Midnapore			
													South 24-Pergunnahs			
													Midnapore			
	0.07	1.25	0.07	1.97	-1.90	42.53	48.21	-5.68	0.4	2.4	Calcutta	...	24-Pergunnahs			
													Howrah			
	0.20	1.02	0.46	1.77	-1.31	46.67	43.45	+3.22	0.7	1.7	Burdwan	...	Burdwan			
													Bankura			
	Nil	1.22	0.09	2.00	-1.91	50.13	48.83	+1.30	—	2.1	Ranigunge	...	Beerbhoom			
													West Burdwan			
	0.04	1.18	0.04	2.01	-1.97	38.00	47.72	-9.72	0.1	2.0	Berhampore	...	South-West Bengal.			
	0.01	0.96	0.01	1.88	-1.87	33.11	47.23	-14.12	0.2	1.9	Moorsheadabad	...	Nuddea			
	0.07	0.88	0.07	1.68	-1.61	39.37	50.34	-10.97	0.4	1.9	Jessore	...	Jessore			
													Khooina			
	3.53	1.56	3.95	3.78	+0.17	124.62	121.28	+3.34	3.0	2.5	Chittagong	...	Chittagong			
	0.74	3.54	2.04	5.38	-3.34	70.06	77.01	-6.95	2.0	3.0	Demagri	...	Chittagong Hill Tracts			
	2.78	1.47	3.03	2.64	+0.39	55.83	74.30	-18.47	1.8	2.0	Barrisal	...	Backergunge			
	3.70	1.85	3.78	3.75	+0.03	108.26	104.81	+3.45	2.0	2.6	Noakhally	...	Noakhally			
	0.98	1.15	0.98	2.02	-1.04	40.23	54.13	-13.90	1.7	2.1	Furreedpore	...	Furreedpore			
	2.52	1.17	2.52	2.16	+0.36	41.81	59.03	-17.22	1.7	2.0	Dacca	...	Dacca			
	1.67	1.73	1.67	3.28	-1.61	63.92	68.51	-4.59	2.0	2.1	Commillah	...	Commillah			
	0.69	1.48	0.69	2.70	-2.01	42.54	66.19	-23.65	0.5	2.1	Mymensingh	...	Mymensingh			
	0.02	1.33	0.02	2.51	-2.49	34.34	55.02	-20.68	0.5	1.8	Serajgunge	...	Bogra and Pubna			
	0.16	1.39	0.16	2.20	-2.04	27.96	51.81	-23.85	0.5	2.1	Rampore Beauleah	...	Rajshahye			
	Nil	1.13	0.01	2.51	-2.50	39.07	58.01	-18.94	—	2.0	Dinapore	...	Dinapore			
	Nil	1.35	Nil	2.22	-2.22	51.17	74.91	-23.74	—	1.9	Rungpore	...	Rungpore			
	0.72	1.42	0.94	4.16	-3.22	113.44	110.05	+3.39	0.4	2.2	Julpigoree	...	North Bengal.			
	1.48	1.69	1.94	4.29	-2.35	139.53	146.28	-6.75	1.0	3.0	Darjeeling	...	Darjeeling Hill Districts			
	Nil	1.24	Nil	1.94	-1.94	51.19	56.42	-5.23	—	1.4	Purneah	...	Purneah			
	Nil	1.78	Nil	2.25	-2.25	39.81	41.15	-1.34	—	1.6	Durbhunga	...	North Bihar.			
	Nil	2.15	0.01	4.82	-4.81	31.45	44.94	-13.49	—	1.7	Motihari	...	Mozufferpore			
	Nil	1.53	Nil	2.48	-2.48	34.58	40.11	-5.54	—	1.5	Chupra	...	Durbhunga			
	—	—	—	—	—	—	—	—	—	—	Dehree	...	Chumparun			
	Nil	1.27	Nil	1.97	-1.97	29.35	37.99	-8.64	—	1.3	Buxar	...	Sacun			
	—	—	—	—	—	—	—	—	—	—	Shahabad	...	Dehree			
	Nil	1.50	Nil	2.16	-2.16	37.01	39.10	-2.09	—	1.3	Gya	...	Buxar			
	Nil	1.59	Nil	2.04	-2.04	40.88	38.23	+2.65	—	1.4	Bankipore	...	Gya			
	Nil	1.22	Nil	1.69	-1.69	36.71	40.26	-3.55	—	1.3	Bhagulpore	...	Patna			
	Nil	1.18	Nil	1.83	-1.83	38.85	47.60	-8.75	—	1.7	Doomka	...	South Bhagulpore			
	Nil	0.89	Nil	1.68	-1.68	40.30	46.26	-5.96	—	1.5	Hazaribagh	...	Monghyr			
	Nil	1.16	Nil	1.90	-1.90	44.34	45.36	-1.02	—	1.6	Ranchedee	...	Sonthal Pergunnahs			
	Nil	0.77	Nil	1.15	-1.15	50.23	49.19	+1.04	—	1.7	Chyebassa	...	Hazaribagh			

and for the past 1 year. The variations are *negative* when the mean for the week is less than the corresponding normal mean, and *positive* when greater. The number denoting cloud amount represent the part of the sky covered, the whole sky being denoted by 10. Under the head "district observations" are the numerical averages of the rainfall returns received from the 100 stations for the period in question during the past 12 years. The "means for the district" are the numerical averages of the rainfall returns received from one on which at least an hundredth of an inch fell.

Statement of Rainfall in Bengal for the week ending Friday (6 p.m.), the 12th of October 1883.

Meteorological division.	District.	Station.	RAINFALL.							Total.		Average total rainfall from 1st to 12th October.	Total rainfall since 15th May.	Average rainfall from 15th May to date.	
			Saturday, 6th October.	Sunday, 7th October.	Monday, 8th October.	Tuesday, 9th October.	Wednesday, 10th October.	Thursday, 11th October.	Friday, 12th October.	Number of rainy days.	Rainfall week.				
ORISSA	Pooree	Pooree	...	...	...	...	...	...	0'17	1	0'17	0'34	2'98	51'27	42'52
		Khurdah	...	...	...	...	...	...	0'20	1	0'20	0'36	3'01	50'96	50'96
		Banpur	...	...	...	...	...	...	...	—	—	—	3'13	55'64	43'12
		False Point	...	...	...	...	...	...	...	—	—	—	4'26	56'25	56'25
		Hookitola	...	...	...	...	...	...	...	—	—	—	—	—	—
CUTTACK	Cuttack	Jagatsingapore	...	...	...	...	...	...	...	—	—	—	3'40	—	40'22
		Banki	...	...	...	...	...	...	...	—	—	—	—	—	—
		Cuttack	...	...	...	...	...	...	...	—	—	—	2'46	63'84	40'73
		Kendrapara	...	...	...	...	...	...	...	—	—	—	2'33	59'51	47'73
		Jajpore	...	...	...	...	...	...	...	—	—	—	3'15	54'40	49'42
BALASORE	Balasore	Chandballi	...	...	...	...	...	...	...	—	—	—	3'46	—	—
		Bhuddruck	...	...	...	...	...	...	...	—	—	—	1'99	48'94	48'35
		Sorah	...	...	...	...	...	...	0'15	1	0'15	0'15	2'90	40'63	47'51
		Balasore	...	...	...	...	...	...	...	—	—	—	2'90	51'25	48'83
		Jelesore	...	...	...	...	...	...	...	—	—	—	2'94	51'73	51'73
SOUTH-WEST BENGAL	Midnapore	Baripodah	...	...	...	...	...	...	...	—	—	—	3'20	47'49	50'37
		Contai	...	...	...	...	...	...	0'58	1	0'58	0'58	2'31	50'87	54'83
		Saugor Island	...	...	...	...	...	...	1'10	1	1'10	1'10	1'45	44'60	57'38
		Templock	...	...	...	...	...	...	...	—	—	—	Nil	1'68	46'19
		Midnapore	...	...	...	...	...	...	...	—	—	—	Nil	2'66	36'31
24-PURGANNAH	24-Purgannahs	Ghatal	...	...	...	...	...	...	...	—	—	—	Nil	5'25	—
		Diamond Harbour.	...	...	...	...	...	...	...	—	—	—	Nil	Nil	9'42
		Alipore Jail	...	...	...	...	...	0'14	...	1	0'14	0'14	1'74	39'03	51'44
		Barrackpore	...	...	...	...	...	...	...	—	—	—	Nil	1'60	38'80
		Dum-Dum	...	...	...	...	...	...	...	—	—	—	Nil	1'89	39'22
HOWRAH	Howrah	Baraset	...	...	...	...	...	0'45	...	1	0'45	0'45	1'76	37'66	47'78
		Susserhat	...	...	...	...	...	...	...	—	—	—	Nil	1'84	54'90
		Howrah	...	...	...	...	...	0'02	...	1	0'02	0'02	1'90	36'86	54'78
		Mohegheka (Oloberiah)	...	...	...	...	...	...	...	—	—	—	Nil	2'32	47'01
		Hooghly	...	...	...	...	...	0'09	...	—	—	—	Nil	Nil	1'99
Burdwan	Burdwan	Serampore	...	...	...	...	...	0'09	...	1	0'09	0'09	2'18	40'36	46'35
		Hoogliy	...	...	...	...	...	...	...	—	—	—	Nil	2'47	44'07
		Jehannabad	...	...	...	...	...	...	...	—	—	—	Nil	2'47	44'41
		Culna	...	...	...	...	...	0'31	...	1	0'31	0'31	1'10	1'79	45'65
		Burdwan	...	...	...	...	...	0'30	...	1	0'30	0'30	1'68	52'85	41'05
Bankura	Bankura	Cuttawa	...	...	...	...	...	...	...	—	—	—	Nil	1'86	41'52
		Raneeunge	...	...	...	...	...	...	...	—	—	—	Nil	0'10	45'74
		Bankura	...	...	...	...	...	...	...	—	—	—	Nil	2'07	45'90
		Bishenpore	...	...	...	...	...	...	...	—	—	—	Nil	1'65	45'14
		Malirra	...	...	...	...	...	...	...	—	—	—	Nil	1'92	41'92
Birbhum	Beerbhum	Khatra	...	...	...	...	...	...	...	—	—	—	Nil	1'60	45'63
		Bh. Soory	...	...	...	...	...	...	...	—	—	—	Nil	1'51	54'44
		Hetampore	...	...	...	...	...	...	...	—	—	—	Nil	1'94	45'38
		Nuddes	...	...	...	...	...	...	...	—	—	—	Nil	Nil	5'14
		Bonkong	...	...	...	...	...	...	...	—	—	—	Nil	2'30	38'04
Khoolna	Khoolna	Ranaghata	...	...	...	...	...	...	...	—	—	—	Nil	1'87	47'42
		Kishnaghata	...	...	...	...	...	...	...	—	—	—	Nil	2'30	47'78
		Chowadanga	...	...	...	...	...	...	...	—	—	—	Nil	1'86	44'11
		M-herpore	...	...	...	...	...	...	...	—	—	—	Nil	1'41	49'35
		Koosites	...	...	...	...	...	0'06	...	1	0'06	0'06	1'40	32'15	45'35
Jessore	Jessore	Satikira	...	...	...	...	...	...	...	—	—	—	Nil	1'72	55'20
		Bagirhat	...	...	...	...	...	0'25	...	1	0'25	0'25	1'67	44'80	49'31
		Khoolna	...	...	...	...	...	0'07	...	1	0'07	0'07	1'66	38'02	56'63
		Narail	...	...	...	...	...	...	...	—	—	—	Nil	1'70	33'12
		Jessore	...	...	...	...	...	...	—	—	—	—	Nil	1'78	36'33
MOORSHEDABAD	Moorshedabad	Jhenidah	...	...	...	...	...	...	—	—	—	—	Nil	0'15	59'27
		Magoorah	...	...	...	...	...	...	—	—	—	—	Nil	1'45	38'74
		Kandi	...	...	...	...	...	0'26	...	1	0'26	0'26	1'93	42'51	49'17
		Rampore Haut	...	...	...	...	...	...	—	—	—	—	Nil	1'69	46'07
		Herhampore	...	...	...	...	...	...	—	—	—	—	Nil	1'90	55'03
CHITTAGONG	Chittagong	Lalbagh	...	...	...	...	...	...	—	—	—	—	Nil	2'32	32'52
		Azimgunge	...	...	...	...	...	...	—	—	—	—	Nil	2'93	39'63
		Jungipore	...	...	...	...	...	...	—	—	—	—	Nil	1'27	42'18
		Laigola	...	...	...	...	...	...	—	—	—	—	Nil	2'05	45'99
		Cox's Bazar	...	...	...	...	...	0'24	0'24	1'05	3	3'58	3'93	3'90	141'64
CHITTAGONG HILL TRACTS	Chittagong Hill Tracts	Chittagong	...	...	...	...	0'85	0'10	0'11	3	1'96	1'46	3'67	104'84	117'01
		Ranamatia	...	...	...	...	0'53	0'10	0'61	3	1'24	3'59	5'10	67'78	82'37
		Ruma	...	...	...	...	0'25	...	...	1	0'25	0'30	5'66	72'34	79'01
		Agartola	...	...	...	...	...	...	—	—	—	—	2'70	—	68'81
		Patuakhally	...	...	...	...	...	3'70	...	1	3'70	4'40	2'40	64'04	65'21
BACKERGUNGE	Backergunge	Perozpore	...	...	...	...	2'90	0'15	2	3'05	3'05	2'73	49'02	67'98	—
		Burrishal	...	...	...	...	0'75	1'32	2	2'07	2'38	1'92	50'51	65'11	—

Statement of Rainfall in Bengal for the week ending Friday (6 p.m.), the 12th of Oct. 1883—concluded.

Meteorological division.	District.	Station.	RAINFALL.							TOTAL.		Total rainfall from 1st to 12th October.	Average total rainfall from 1st to 12th October.	Total rainfall since 15th May.	Average rainfall from 15th May to date.	
			Saturday, 6th October.	Sunday, 7th October.	Monday, 8th October.	Tuesday, 9th October.	Wednesday, 10th October.	Thursday, 11th October.	Friday, 12th October.	Number of rainy days.	Rainfall of week.					
NORTH BENGAL	Pubna	Pubna	...	...	...	...	0'02	...	1	0'02	0'02	2'69	28'98	52'76		
		Serajgunge	...	...	...	...	0'03	...	1	0'03	0'03	1'96	40'77	50'27		
	Bogra	Sherpore	...	...	...	...	0'05	...	—	1	0'05	2'45	31'77	61'37		
		Nowkhilla	...	...	...	...	—	...	—	—	Nil	3'44	27'48	55'28		
	Bogra	Bogra	...	...	...	...	—	...	—	—	Nil	2'05	38'10	59'59		
	Panchbibi	Panchbibi	...	...	...	...	—	...	—	—	Nil	2'64	31'29	54'28		
	Rajshahye	Beasleah	...	...	...	...	—	...	—	—	Nil	2'02	26'78	52'00		
		Nattore	...	...	...	...	—	...	—	—	Nil	2'42	24'77	54'55		
	Maldah	Maldah	...	...	...	...	—	...	—	—	—	2'15	—	48'81		
	Dinagepore	Mohadebpore	...	...	...	...	—	...	—	—	Nil	1'84	35'15	62'72		
		Churamon	...	...	...	...	—	...	—	—	Nil	2'11	35'95	51'93		
		Raijunge	...	...	...	...	—	...	—	—	Nil	3'10	40'39	56'41		
		Dinagepore	...	...	...	...	—	...	—	—	Nil	0'05	44'79	60'90		
		Baloorhat	...	...	...	...	—	...	—	—	Nil	2'99	34'74	—		
	Rungpore	Bhawanigunge (Gyabanda).	...	...	...	...	—	...	—	—	Nil	Nil	3'04	46'44	60'64	
		Rungpore	...	...	...	...	—	...	—	—	Nil	Nil	2'63	45'35	72'60	
		Kurigram	...	...	...	...	—	...	—	—	Nil	3'68	45'00	76'91		
		Bagdogra (Nilphamari.)	...	...	...	...	—	...	—	—	Nil	3'65	67'89	90'40		
	Julpigoree	Julpigoree	...	...	...	...	—	...	—	—	Nil	0'86	2'44	135'32	110'31	
	Cooch Behar	Dinhatta	...	...	...	...	—	...	—	—	Nil	Nil	4'88	68'32	162'93	
		Cooch Behar	...	...	...	...	0'10	1	0'10	0'20	0'20	2'97	121'12	112'28		
		Mickligunge	...	...	...	...	—	...	—	—	Nil	0'05	3'45	107'71	107'18	
		Matabhangha	...	...	...	...	—	...	—	—	Nil	3'61	7'13	134'68	118'53	
	Darjeeling	Buxa	...	0'13	...	...	2'83	2	2'96	4'60	4'60	6'05	181'01	191'36		
	Hill.	Siliguri	...	0'15	...	...	—	1	0'15	0'15	—	—	—	—	—	
		Darjeeling	...	...	...	...	—	...	—	—	Nil	0'68	2'55	105'45	101'20	
		Kalimpong	...	...	...	...	0'30	...	1	0'30	0'48	—	—	—	—	
NORTH BENGAL	Purneah	Kissengunge	...	...	...	...	—	...	—	—	Nil	Nil	1'55	50'75	65'85	
		Arrareah	...	...	...	...	—	...	—	—	Nil	Nil	2'01	61'89	61'86	
		Purneah	...	...	...	...	—	...	—	—	Nil	Nil	2'04	34'55	60'53	
	North Bhagulpore	Madalapore	...	...	...	...	—	...	—	—	Nil	Nil	2'70	44'90	46'97	
		Scopool	...	...	...	...	—	...	—	—	Nil	1'38	44'01	—	—	
	Durbhunga	Tajpore	...	...	...	...	—	...	—	—	Nil	Nil	2'08	43'61	38'81	
		Durbhunga	...	...	...	...	—	...	—	—	Nil	Nil	2'08	39'98	43'24	
		Madhubani	...	...	...	...	—	...	—	—	Nil	1'86	42'11	41'83		
	Mozuferpore	Sitamarhi	...	...	...	...	—	...	—	—	Nil	Nil	1'88	33'30	39'47	
		Mozuferpore	...	...	...	...	—	...	—	—	Nil	Nil	2'01	46'66	62'60	
		Hajipore	...	...	...	...	—	...	—	—	Nil	Nil	3'55	33'75	49'80	
	Chumparun	Motihari	...	...	...	...	—	...	—	—	Nil	0'03	3'39	34'25	41'43	
	Sarun	Bettiah	...	...	...	...	—	...	—	—	Nil	Nil	3'26	32'57	46'55	
		Gopalgunge	...	...	...	...	—	...	—	—	Nil	Nil	7'79	27'66	46'80	
		Sewau	...	...	...	...	—	...	—	—	Nil	Nil	2'73	32'62	41'38	
		Chuprah	...	...	...	...	—	...	—	—	Nil	Nil	2'21	36'55	36'85	
SOUTH BENGAL	Shahabad	Buxar	...	...	...	...	—	...	—	—	Nil	Nil	1'81	38'67	35'60	
		Dehree	...	...	...	...	—	...	—	—	Nil	Nil	—	—	—	
		Bhooosah	...	...	...	...	—	...	—	—	Nil	Nil	1'94	26'70	39'71	
		Sassera	...	...	...	...	—	...	—	—	Nil	Nil	2'32	27'65	39'26	
		Arrah	...	...	...	...	—	...	—	—	Nil	Nil	1'86	29'40	37'41	
	Gya	Aurangabad	...	...	...	...	—	...	—	—	Nil	Nil	2'29	31'24	40'27	
		Gya	...	...	...	...	—	...	—	—	Nil	Nil	1'39	43'82	39'21	
		Nowadah	...	...	...	...	—	...	—	—	Nil	Nil	1'59	32'31	39'36	
		Jehanabad	...	...	...	...	—	...	—	—	Nil	Nil	2'37	38'61	—	
	Patna	Patna	...	...	...	...	—	...	—	—	Nil	Nil	5'14	86'72	39'33	
		Dinapore	...	...	...	...	—	...	—	—	Nil	Nil	1'97	38'40	—	
		Behar	...	...	...	...	—	...	—	—	Nil	Nil	1'92	58'95	37'44	
		Barrh	...	...	...	...	—	...	—	—	Nil	Nil	2'12	38'40	37'73	
	Monghyr	Begoorserai	...	...	...	...	—	...	—	—	Nil	Nil	1'50	50'31	39'14	
		Monghyr	...	...	...	...	—	...	—	—	Nil	Nil	2'66	28'55	44'38	
		Jamui	...	...	...	...	—	...	—	—	Nil	Nil	1'28	36'24	41'09	
	South Bhagulpore	Bhagulpore	...	...	...	...	—	...	—	—	Nil	Nil	2'12	39'02	37'94	
		Banka	...	...	...	...	—	...	—	—	Nil	Nil	1'49	31'40	41'69	
	Sonthal Per-gunnahs.	Rajmehal	...	...	...	...	—	...	—	—	Nil	Nil	1'76	26'79	49'87	
		Godda	...	...	...	...	—	...	—	—	Nil	Nil	1'65	34'89	44'24	
		Pakour	...	...	...	...	—	...	—	—	Nil	Nil	1'85	45'39	49'18	
		Nya Doonka	...	...	...	...	—	...	—	—	Nil	Nil	2'67	45'31	51'43	
		Deoghur	...	...	...	...	—	...	—	—	Nil	Nil	1'59	39'83	45'26	
		Jamtara	...	...	...	...	—	...	—	—	Nil	Nil	1'46	46'91	45'03	
BUTIA NAG-PUR.	Hazaribagh	Pachamba	...	...	...	...	—	...	—	—	Nil	Nil	1'60	44'92	—	
		Hazaribagh	...	...	...	...	—	...	—	—	Nil	Nil	1'62	46'30	44'73	
		Semtagurh	...	...	...	...	—	...	—	—	Nil	Nil	1'74	40'44	—	
		Mahudi Hills	...	...	...	...	—	...	—	—	Nil	Nil	1'77	48'92	—	
	Lohardugga	Lohardugga	...	...	...	...	—	...	—	—	Nil	Nil	1'45	55'55	48'39	
		Ranchoi	...	...	...	...	—	...	—	—	Nil	Nil	1'78</td			

**SUMMARY OF THE METEOROLOGICAL AND RAINFALL OBSERVATIONS TAKEN IN BENGAL FOR THE WEEK ENDING FRIDAY,
THE 12TH OF OCTOBER 1883.**

DURING the six days preceding the week now under review, the whole Province had been practically rainless. Pressure had been gradually becoming more uniform over the whole reporting area for some time previous, and had also been considerably above the normal until the 5th instant, when a somewhat brisk fall had taken place. With the establishment of these conditions, the south-west monsoon winds had been driven back from over the land area, and had been replaced by dry northerly winds in almost all parts of the Province. Pressure continued to decrease on the 6th and 7th, but as the fall was general over a large part of India, the relative distribution was not changed to any material extent; and though pressure on the latter date was considerably below the normal, the general conditions as to winds, weather, &c., were unchanged. From the 8th instant, however, pressure commenced to recover itself briskly, and this rising barometer has continued generally up to the close of the week, when pressure was largely in excess of the normal in all districts. Northerly winds continued therefore to blow over the greater part of the Province during the greater part of the week, but at several of the stations in the south of the Bay south-westerly winds, and in some cases of very considerable velocity, were reported, and as a natural consequence of the interaction or interference of these opposing wind currents over the sea area, weather became distinctly unsettled over the Bay. This disturbed condition of the weather over the sea area does not appear to have localized itself so as to generate a single well-developed barometric depression or cyclonic vortex, but only a large shallow diffused disturbance was produced, in which apparently there were several smaller disturbances, or what might perhaps be called storm patches. One of these miniature storms appears to have passed into Eastern Bengal on Thursday, the 11th, and it brought with it very general rain, so that at many stations in this division considerable amounts of rain were received on Thursday and Friday, while at the same time showers were received at some stations in South-West and North Bengal. The main portion of the diffused disturbance which had been formed in the Bay, however, appears gradually to have drifted in a westerly direction towards land, and was at the close of the week approaching the South Orissa and Madras coasts, where it has since given heavy rain with clouded skies. The greater part of the past week has therefore again been practically rainless over a large proportion of the reporting area, and with the exception of a few insignificant local showers, which were received in North Bengal in the earlier part of the week, the only rainfall of importance has fallen on the last two days of the week, and has been confined principally to East Bengal, and to a small section of South-West and North Bengal.

As before stated, the week opened with a falling barometer, and in fact on the 6th instant, pressure was below the normal by an average amount of 0.06"; the fall was intensified on the 7th, and on that day the average defect was 0.08". From that date, however, the barometer has risen steadily, and on the 12th instant the average excess pressure over the whole Province was 0.07". In consequence of these opposing variations, the average pressure for the whole week at most stations does not differ much from the normal. The greatest average variation is a defect of 0.06" at Durbhunga, but at all other stations the variations do not exceed one or two hundredths of an inch, and in some cases the quantities are in excess, and in others in defect of the normal. In consequence, however, of the almost complete absence of rain during the greater part of the week, and of the nearly cloudless skies which have prevailed, temperature in most districts has been above the normal. Thus Chutia Nagpur shows an average excess of 2.8° for the week, North Behar an average excess of 1.8°, Orissa an average excess of 1.6°, South Behar an excess of 1.1°, and South-West Bengal an excess of 0.7°. East Bengal, however, has registered an almost normal temperature during the past week.

The following table gives the usual summary of the temperature and rainfall data for each of the seven meteorological divisions of the Province:—

METEOROLOGICAL DISTRICT.	TEMPERATURE						RAINFALL.													
	Highest observed during week.		Lowest observed during week.		Average for week.		Average mean of week above or below normal mean of week.	Of week.		Rainy days.		Normal average number.	Variation.	Average.	Normal average.	Variation.	Average.	Normal average.	Variation.	Average.
	Of highest of each day.	Of lowest of each day.	Of mean for each day.	Of mean for each day.	Average.	Normal average.		Average.	Normal average.	Average.	Normal average.									
Orissa	94.9	72.0	92.0	76.8	84.2	+1.6	0.06	1.83	-1.77	0.3	2.3	-2.0	0.14	3.01	53.31	48.62				
South-West Bengal	96.1	71.2	92.0	75.9	84.6	+0.7	0.08	1.15	-1.07	0.3	2.1	-1.8	0.14	1.92	41.82	48.55				
East Bengal	93.2	71.4	88.2	76.4	82.3	0.0	1.82	1.66	+0.16	1.6	2.2	-0.6	2.02	3.05	62.78	74.10				
North Bengal*	98.67	70.1	91.3	74.5	82.9	—	0.19	1.31	-1.12	0.3	2.0	-1.7	0.24	2.95	55.04	71.41				
North Behar	95.9	65.8	89.3	73.6	81.5	+1.8	Nil	1.65	-1.56	—	1.6	-1.6	Nil	2.66	41.15	48.56				
South Behar	96.9	61.2	93.0	71.4	82.1	+1.1	Nil	1.33	-1.33	—	1.4	-1.4	Nil	1.92	36.77	41.23				
Chutia Nagpur†	89.5	66.4	88.4	62.5	78.5	+2.8	Nil	1.00	-1.00	—	1.7	-1.7	Nil	1.72	43.69	46.19				

* Maximum of Rampore-Beauleah reads too high.

† Singbhum being excepted in the abstract.

As has been before pointed out, the past week has been one of extremely deficient rainfall, and had it not been for the occurrence of a very small cyclonic storm, which passed up from the Bay of Bengal into Eastern Bengal, it is more than possible that the whole Province would have been practically rainless for the entire week. The passage of this small storm, however, brought moderate to heavy rain to Eastern Bengal, and a few showers to Orissa, South-West Bengal, and North Bengal, but the districts of North and South Behar and Chutia Nagpur, which were completely removed from the influence of this storm, have been perfectly rainless during the entire week. Compared with the normal fall, East Bengal during the past week has received a rainfall in excess of the average by about 10 per cent., while the few showers which have fallen in the other districts have given North Bengal 14 per cent. of the normal fall, South-West Bengal 7 per cent. of the usual quantity, and Orissa 3 per cent. of the normal amount. The number of rainy days too has been proportionally even smaller than the rainfall, and though on the average the amount of rain has been in excess in East Bengal, yet the number of rainy days has been distinctly below the normal, the normal average being 2.2, while the average for the week has been 1.6 days.

Taking East Bengal first as having received the largest amount of rain, even here the greater number of stations in the Mymensingh district have been absolutely rainless, but in all other districts of this division the rainfall has been well distributed. In North Bengal almost the whole number of stations have been absolutely rainless, and the only stations which have received amounts of rain worth recording are Matabhanga and Buxa. In South-West Bengal about one-third of the stations have received slight showers, which, however, do not average more than two or three tenths of an inch, while in Orissa only three stations report slight showers not averaging even two tenths of an inch. As before stated, the stations in the remaining districts report absolutely no rain during the entire week.

Saturday, 6th October.—Pressure decreased by small amounts over the whole Province. Pressure was considerably below the normal, the average defect being about 0.06". The changes of temperature were small and somewhat variable. Temperature still continued considerably above the normal, the excess ranging from an average of about 3° in South-West Bengal to 2° in Orissa, South Behar, East Bengal and Chutia Nagpur. Winds were light and irregular. In South-West Bengal, South Behar, and Chutia Nagpur, there was a strong westerly element in the wind directions, but in North Bengal and North Behar winds were principally north-easterly and easterly. In all cases wind velocities were very small. Humidity was small over the whole reporting area, particularly in South Behar and Chutia Nagpur. Cloud proportion was also very small, and in Behar, Chutia Nagpur, and South-West Bengal the sky was almost perfectly cloudless. The whole Province was to-day rainless.

Sunday, 7th October.—Pressure continued to decrease at almost all stations by small amounts. The fall was least in Behar and greatest in South-West Bengal. Pressure was considerably below the normal over the whole Province, the average defect being about 0.08". The changes of temperature were very small and of variable nature. Temperature still continued above the normal in all districts. The average excess was about 2°, though at Durbhanga an excess of 4.5° was reported. Very light north-westerly winds were still blowing in Chutia Nagpur, South-West Bengal, and Orissa. In East and North Bengal winds were generally easterly and north-easterly, while calms were reported from half the stations in Behar. The wind velocity over the whole Province was particularly small. Humidity remained low in all districts. The amount of cloud had increased slightly, though it was still small in all districts. With the exception of two slight showers in the Darjeeling district at Buxa and Siliguri, the whole Province was rainless. The amount reported from Siliguri was 0.15 inch and from Buxa 0.13 inch.

Monday, 8th October.—Pressure increased briskly over the whole Province. The increase averaged about 0.06", and it was approximately equal in most districts. Pressure therefore continued very uniform over the whole reporting area. The variations from normal pressure (except at Durbhanga) were not large, and it was nearly normal over the Province generally, though it was slightly below it in East Bengal and above it in Chutia Nagpur. Temperature had fallen slightly at most stations except in Behar. The changes were, however, so small that temperature still continued considerably above the normal. The excess temperature in East and South-West Bengal and in Orissa was nearly 2°; in Chutia Nagpur it was between 2° and 3°; while at Patna an excess temperature of 5° was reported. Winds continued north-westerly in Chutia Nagpur, South-West Bengal, and Orissa; they were north-easterly in East and North Bengal; while calms and variable winds were reported from Behar. Wind velocities continued very small in all districts. Humidity was particularly small in South Behar and Chutia Nagpur. It was also comparatively small in all other districts. Cloud proportion was remarkably low, and Orissa, South-West Bengal, East Bengal, North Bengal and Chutia Nagpur were practically cloudless, while Behar reported a slightly clouded sky only. The whole province was rainless to-day.

Tuesday, 9th October.—Pressure continued to increase rather rapidly in all divisions. The increase was least in North and East Bengal, and largest in South Behar and Chutia Nagpur. In East Bengal pressure was almost normal, while all other divisions showed a pressure considerably above the normal. The excess pressure varied from 0.02" in South-West Bengal to 0.07" in North Behar and Chutia Nagpur. The changes of temperature were small and variable, but on the whole temperature was falling. It was still above the normal for the day at almost all stations, the average excess being between 1° and 2°, though Durbhanga, Patna, and Hazaribagh reported temperatures nearly 4° above the normal. Light

northerly winds prevailed in all divisions except South Behar, where the majority of stations reported south-westerly winds. Wind velocities were particularly small in all districts. Humidity remained small over the whole Province. The sky was also almost cloudless in all divisions. The whole Province was again rainless to-day.

Wednesday, 10th October.—Pressure had increased in South-West, East, and North Bengal, but in Orissa, Behar, and Chutia Nagpur the changes were very small and variable. Pressure continued very uniform over the whole reporting area, and at most stations it was above the normal for the day. The excess amounts ranged from 0.02" in Orissa to 0.06" in North Behar. Temperature continued very high in all districts. It averaged about 2° above the normal, while at Hazaribagh and Durbhanga it was between 4° and 5° above the normal. Winds were somewhat irregular. They were northerly and north-westerly in Chutia Nagpur, Orissa and South-West Bengal, north-easterly in North Bengal, south-easterly in South Bengal, and variable in Behar. Wind velocities continued particularly small. Humidity was extremely low in Chutia Nagpur and South Behar, and low in all other districts except East Bengal, where it had increased. Cloud proportion was small at all stations except Saugor Island, False Point, and Chittagong. A few slight showers fell in East and North Bengal, but the remainder of the reporting area was perfectly rainless. The amounts reported were Rungamati 0.53 inch, Chittagong 0.85 inch, Ruma 0.25 inch, Kalimpong 0.3 inch, Cox's Bazar 0.24 inch, and Sherpore 0.05 inch.

Thursday, 11th October.—Pressure had increased decidedly in East, North, and South-West Bengal, the increase being largest at the eastern stations. In Behar, Chutia Nagpur, and Orissa the changes of pressure were small and somewhat variable. Pressure continued above the normal of the day by amounts which ranged from 0.014" at Saugor Island to about 0.08" at Chittagong and Durbhanga. Temperature was falling generally in Orissa, East Bengal, and Behar, but was stationary or in some cases increasing in South-West and North Bengal and Chutia Nagpur. In the latter districts it was above the normal by amounts which averaged from 2° to 3° and was distinctly below the normal in East Bengal and Orissa. Winds were north-westerly in Orissa, easterly in South-West Bengal, north-easterly in North Bengal and Chutia Nagpur, while in Behar winds were rather variable. Wind velocities continued very small in all districts. Humidity was very small in Chutia Nagpur and South Behar, but in other districts it was decidedly increasing. Cloud proportion had rapidly increased in all districts, and was very large at several stations in East and South-West Bengal.

With the passage of the small storm into Eastern Bengal, rainfall became very general in that division. A few showers also fell in South-West and North Bengal. The following were the largest amounts recorded:—Fatuakhally 3.7 inches, Perozepore 2.9 inches, Cox's Bazar 2.24 inches, Munshigunge 1.29 inches, Bhola 1.15 inches, Dacca 0.94 inch, Burrisal 0.75 inch, Kishoregunge 0.73 inch, Contai 0.58 inch and Chandpore 0.5 inch.

Friday, 12th October.—Pressure increased generally over the whole reporting area, except locally in East Bengal, where a fall was reported at several stations owing to the influence of a small cyclonic storm which had passed inland over that district. Pressure was very largely above the normal in most divisions, the excess averaging nearly 0.08", while at Durbhanga an excess of 0.14" was reported. Temperature had fallen in almost all divisions, particularly in East Bengal. It was still above the average in Orissa, South-West Bengal, Behar, and Chutia Nagpur, but was decidedly below the normal (by about 4° to 5°) in East Bengal. Winds had not changed very materially, except in East Bengal, where southerly winds were reported from some stations, and where in fact there were distinct evidences of a small cyclonic circulation of winds. Wind velocities had increased very distinctly in all districts except Behar. Except in South Behar and Chutia Nagpur, humidity had distinctly increased. Cloud proportion was very high in East Bengal and in South-West Bengal. It had also increased in Orissa and North Bengal.

Rain was again very general in Eastern Bengal and in the Cooch Behar district of North Bengal, and at some stations it was very heavy. A few showers also fell in South-West Bengal and in Orissa. The largest amounts reported were Moonshigunge 4.52 inches, Fenny 3.59 inches, Matabhanga 3.5 inches, Buxa 2.83 inches, Kishoregunge and Comilla 2.05 inches, Madaripore 1.45 inches, Burrisal 1.32 inches, Naraingunge 1.23 inches, Bhola 1.17 inches, Tumlook 1.1 inches, and Cox's Bazar 1.05 inches.

METEOROLOGICAL OFFICE, BENGAL,

ALEXANDER PEDLER, F.C.S.,

The 16th October 1883.

Offg. Meteorological Reporter to the Govt. of Bengal.

Results of the Meteorological Observations taken at the Alipore Observatory from 7th to 13th October 1883.

Month.	Date.	Maximum in sun.	Number of hours of bright sunshine.	Mean pressure barometer at 39° Fahr.	TEMPERATURE.				HYGROMETRY.				WIND.		Miles recorded.	Rain.	WEATHER.
					Mean	Maximum.	Range.	Minimum.	Mean wet bulb.	Vapour tension.	Dew point	Humidity.	Prevailing direction.				
Oct.	7th	147.2	10.9	29.730	82.9	91.5	15.1	76.4	77.9	0.892	75.8	81	W by S and SW by S	74	Inches	Nil.	Partially clear.
,,	8th	146.4	11.3	29.781	82.8	91.6	15.1	76.5	77.5	0.876	75.2	80	SW by S and NNW	43	,,	Chiefly clear =.	
,,	9th	145.5	10.9	29.813	82.9	91.2	15.0	76.2	76.8	0.804	72.7	77	NNW	50	,,	Chiefly clear =.	
,,	10th	149.0	10.8	29.819	82.6	91.3	16.3	75.0	77.4	0.873	75.1	79	NE by N, NW by W and variable.	41	,,	Partially cloudy, o.	
,,	11th	156.4	5.0	29.825	81.1	89.7	12.0	77.1	77.6	0.899	76.0	85	S by E and E	81	0.17	Chiefly cloudy, o, g, p.	
,,	12th	151.8	8.8	29.881	79.7	88.6	11.0	75.6	76.7	0.880	75.3	87	EN, and N by E	54	Nil	Chiefly cloudy.	
,,	13th	127.5	2.0	29.938	78.9	85.8	8.6	77.2	76.3	0.874	75.1	89	N by E, SSW and variable.	45	0.50	Chiefly cloudy, o, p, d, g, t.	

The mean pressure of the seven days	... Inches.	29.827
The average pressure of the corresponding period for 24 years, S. G.'s Office	... Inches.	29.809
The total number of hours of bright sunshine of the seven days	... Hours.	59.2
The mean temperature of the seven days	... °	81.6
The average temperature of the corresponding period for 24 years, S. G.'s Office	... °	82.7
The extreme variation of temperature during the seven days	... °	16.6
The maximum temperature during the seven days	... °	91.6
The highest velocity of the wind in one hour during the seven days	... Miles.	10
The highest pressure of the wind on one square foot during the seven days	... lbs.	Not measurable.
The mean relative humidity during the seven days	... %	83
The average relative humidity of the corresponding period for 24 years, S. G.'s Office	... %	81
The total fall of rain from 7th to 13th October 1883	... Inches.	0.67
The average fall of the corresponding period for 24 years, S. G.'s Office	... Inches.	13.8
The total fall from 1st January to 13th October 1883	... Inches.	49.96
The average fall of the corresponding period for 24 years, S. G.'s Office	... Inches.	61.65

The mean pressure, temperature, &c., are deduced from the traces of the Barograph and Thermograph, and from observations made at 6h, 10h, 16h, and 22h.

The maximum and minimum temperatures are obtained from self-registering thermometers. All the thermometers are verified, and the readings have been corrected to a standard constructed and verified at the Kew Observatory. They are exposed under a thatched shed open at the sides, and are suspended four feet above the ground.

The barometer readings are corrected approximately to those of the standard Newman's No 86 formerly at the Surveyor-General's Office.

The hygrometric elements are obtained from Tables III, IV and V of the official tables computed in the Meteorological office, and based on Regnault's modifications of August's formula.

The direction of the movement of the wind are taken from the trace of a Beckley's anemograph.

The mouth of the rain-gauge is one foot above the ground.

o overcast, g gloomy, p passing temporary showers, d drizzling rain, = fog, t thunder.

ALEXANDER PEDLER,

METEOROLOGICAL OFFICE, INDIA,
The 15th October 1883.

For Meteorological Reporter to the Government of India.

Results of the Thermometrical Observations taken at the Meteorological Office,
Chowringhee, from 7th to 13th October 1883.

MONTH.	Date.	TEMPERATURE.				HYGROMETRY.				Rain.
		Mean.	Maximum.	Range.	Minimum.	Mean wet bulb.	Vapour tension.	Dew point.	Humidity.	
1883.		°	°	°	°	°	Inches.	°	%	Inches.
October	7th	83.8	93.3	16.5	76.8	78.2	.891	75.7	.77	Nil
"	8th	84.8	93.2	15.3	77.9	79.0	.856	77.9	.79	"
"	9th	84.1	93.1	15.9	77.2	77.5	.856	74.5	.74	"
"	10th	83.0	91.3	15.6	75.7	78.2	.901	76.1	.80	"
"	11th	81.3	89.1	11.5	77.6	78.2	.925	76.9	.87	0.15
"	12th	80.0	88.8	13.5	75.3	77.1	.893	75.8	.87	Nil
"	13th	80.1	84.8	7.0	77.8	77.1	.892	75.8	.87	0.71

The mean temperature of the seven days 82.4

The extreme variation of temperature during the seven days 18.0

The maximum temperature during the seven days 93.3

The mean relative humidity during the seven days 82

The total fall of rain from 7th to 13th October 1883 0.86

The mean temperature and humidity are obtained by applying to the mean of the 10h, 16h, and minimum readings a correction dependent on the range, and derived from the hourly observations at the Surveyor-General's Office, Chowringhee, in past years.

METEORLOGICAL OFFICE, INDIA,

The 15th October 1883.

ALEXANDER PEDLER,

For Meteorological Reporter to the Govt. of India.



SUPPLEMENT TO The Calcutta Gazette.

WEDNESDAY, OCTOBER 24, 1883.

OFFICIAL PAPERS.

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RESOLUTION ON THE REPORT ON THE ADMINISTRATION OF THE POLICE DEPARTMENT FOR THE YEAR 1882.

POLICE.

Darjeeling, the 8th October 1883.

RESOLUTION.

READ—

The Report on the Administration of the Police Department for the year 1882.

Read again—

The Reports for the years 1880 and 1881, and the orders of Government recorded thereon.

The Government of India, in their letter No. 402, dated the 18th September 1882, having desired that the Annual Report on the Administration of the Police Department should be curtailed by the omission of unimportant matter and needlessly minute details, the necessary instructions were issued to the Inspector-General of Police. The Report, though still of considerable length, is shorter than that of the preceding year. It does not, however, appear to the Lieutenant-Governor that it could be made briefer than it now is without impairing its usefulness as a history of the working of the Department and the state of crime in the province, and depriving this Government of information required to enable it to deal with its police arrangements. The Report was not received by Government until a month after it was due. This delay was caused in part by the fact that none of the divisional reports, with the exception of that for the Rajshahye Division, were submitted by the dates on which they were due, and partly to the fact that incorrect figures for Statement E were sent up, necessitating the entire revision of this statement in the office of the Inspector-General. The Lieutenant-Governor requests the attention of Divisional Commissioners to the matter, as delay

necessarily retards the submission of the complete Report to Government, and affects the orders which the Lieutenant-Governor may consider necessary to issue on important questions long after the occurrences to which they relate.

2. The most important change during the year was the amalgamation of the municipal with the regular police. As stated in the Resolution on the Report for 1882, the Lieutenant-Governor decided, in connection with the scheme of Local Self-Government, on relieving all municipalities, excepting the Town and Suburbs of Calcutta and Howrah, of all police charges. In accordance with this policy, the municipal, the cantonment and the regular police were amalgamated, the entire cost of the force being borne by Government from the 1st April 1882. The increased charge to Government in consequence of the arrangement amounted to nearly Rs. 4,97,000. The effect of the arrangement is to place the municipal police on a level with the rest of the force. This should, Mr. Lyall considers, secure better men for town work, though it will probably render the force less attractive, and keep good men from enlisting, as town work is more arduous and more responsible than general police duties. Already a difficulty is felt in large towns of getting men to remain in the force. At first they are ready enough to enlist, but the high price of labour soon induces them to seek more remunerative employment. The consequence is that constant changes occur in the force, and that raw and inefficient men have to be employed in the performance of duties which require training and experience. In order to remedy this evil, Mr. Lyall suggests that "probably it will be found best to keep the police of the larger towns, particularly in Central and East Bengal, a separate body, while the police of smaller municipalities remain an integral part of the district force." To this special force Mr. Lyall would give higher salary, with a view of inducing the men to remain in it. The subject calls for careful consideration, and there seems little doubt that some steps must be taken to prevent the constant changes to which the Inspector-General refers, and which must naturally have the effect of diminishing the efficiency of the police. The Lieutenant-Governor will be glad to receive a special report containing in full detail the proposals which the Inspector-General would make, and showing the extra cost that the scheme would involve.

3. The original budget grant for the Police Department for the year was Rs. 37,01,620, in which was included a grant of Rs. 1,65,370 for the police of the Chittagong Hill Tracts. The grant was, however, in consequence of the amalgamation of the municipal and regular police, increased by a further sum of Rs. 4,96,929. The actual expenditure during the year was approximately Rs. 39,63,251, as compared with Rs. 36,56,559 in 1881. The strength of the regular force on the 31st December 1882, including the civil and frontier force in the Chittagong Hill Tracts, but excluding the Railway and the reserve police, the Howrah municipal police and the police employed temporarily in Orissa during the salt manufacturing season, was 77 superior officers, 3,480 subordinate officers, and 19,405 constables. It having been found that the Sonthals did not appreciate the motives of Government in allowing police administration to be carried on through their headmen, it was thought that advantage might be taken of this fact to break up the feeling of clanship amongst them which had been the cause of disturbances in the district, and at the same time to improve the administration in Sonthalia by re-establishing the regular police system. During the past year this system was accordingly introduced into all the sub-divisions in the Sonthal Pergunnahs with two exceptions. The old village police and village officers have not, however, been abolished, but they now work in subordination to the Police Department. Since the close of the year the general introduction of the scheme for improving the status of investigating officers by the substitution of 5th grade sub-inspectors for head constables at important outposts has been sanctioned.

4. The cost of the police employed on purely police work was Rs. 26,15,202, as compared with Rs. 21,54,600 in 1881, the increase of Rs. 4,60,602 being due to the amalgamation of the municipal and cantonment police with the regular force. The total cost of this portion of the force on the average was 7.6 pies per head of the population, the cost being 8.4 pies per head in Bengal Proper including the Chittagong Hill Tracts, 8.4 pies in Orissa,

8·5 pies in Chota Nagpore and 6 pies in Behar. The following table shews the proportion to area and to population of the men employed on purely police work:—

PROVINCES.	Number of police.	Area in square miles.	Population.	Proportion of police to area.	Proportion of police to population.
Bengal (inclusive of Chittagong Hill Tracts)	11,767	76,375	34,922,970	1 to 5·1	1 to 2,548
Behar	6,134	44,139	23,127,104	1 to 6·5	1 to 3,462
Orissa	1,414	9,762	2,789,694	1 to 6·7	1 to 2,256
Chota Nagpore	1,424	26,966	4,225,989	1 to 17·7	1 to 2,774
Total ...	20,739	1,57,242	66,065,757	1 to 7·5	1 to 3,185

In comparing the police force in Lower Bengal as regards its number and cost with that entertained in other places, Mr. Lyall remarks: "We have but one policeman where Bombay and the Punjab have three, and Madras and the North-Western Provinces two; while the incidence of cost per head of population is in Bombay over three times what it is in Bengal, in the Punjab it is nearly three times, in Madras somewhat less than twice, and in the North-Western Provinces more than 50 per cent. over the cost in Bengal." The Inspector-General considers that in parts of Bengal the police force is insufficient in number, and he points out that in four districts there is only one policeman to above 5,000 persons, and in six, one to above 4,000, while there are only six districts in which there is one policeman to less than 1,250 persons. The following table given in the Report compares the strength to area and to population of the police force in the various Presidencies:—

PROVINCE.	Number of police sanctioned.	Area in square miles.	Population.	PROPORTION OF POLICE		Cost of police.	Incidence of cost of police per head.
				To area.	To population.		
Madras (a) ...	23,881	139,693	30,480,895	1 to 5·8	1 to 1,276	35,89,695	1 10·6
Bombay and Scinde (b) ...	18,240	124,489	15,579,373	1 to 6·8	1 to 854	30,44,659	3 1·5
North-Western Provinces and Oude (c) ...	33,126	93,183	43,062,222	1 to 2·8	1 to 1,299	42,31,039	1 6·8
Punjab (d) ...	20,466	102,255	17,611,498	1 to 4·9	1 to 860	31,16,137	2 9·9
Bengal (e) ...	24,227	157,242	66,065,757	1 to 6·5	1 to 2,727	41,98,498	1 0·2
	or 25,052			or 1 to 6·3	or 1 to 2,637	or 42,56,104	or 1 0·4

"(a) The figures are taken from Appendix A, pages ii and iii of the Report of 1881, deducting cost of the Madras City Police and of Inspector-General and Deputy Inspectors-General (except orderlies).

"(b) The figures for column 2 are taken from paragraph 17 of the Government Resolution corrected from statement E for the different divisions, so as to include in the statement the same figures as other provinces. Eighty municipal police have been added in the Northern and Central Divisions, and nine District Superintendents in the Southern Division and Scinde. The cost is that given in paragraph 17, minus the total of column 11 of statement E. The proportions in paragraph 17 of the Government Resolution appear to be wrong, and correct figures are given.

"(c) The figures are taken from statement E, pages 12B to 15B of the Report for 1881, deducting column XI from the cost.

"(d) The figures are taken from statement E of the Report for 1881, except the proportions, which are either wrong or not worked in the same way as in other provinces. Cost of inspecting agency is omitted.

"(e) The figures are taken from statement E for 1882. The upper figures exclude the special reserves and the extra salt police; the lower include these."

Two sets of figures are given in the above statement for Bengal, the first excluding and the second including the special reserves, which do no police work, but are semi-military bodies retained for special emergencies, and the salt police entertained in Orissa for a few months only during the year. Mr. Lyall concludes by observing: "The increase of crime in Mymensingh and Tipperah, and the way in which house-breakers have got the better of the police in the Patna Division (four of the seven districts which are mentioned above as having from 4,000 to 5,000 persons to each policeman), show clearly that more policemen are wanted for those districts." A partial increase may be necessary in places, but to make the comparison complete, the Lieutenant-Governor would be glad to know if the proportion of crime to population and police is greater in Bengal than in other provinces. There is little doubt that we have to deal with a generally peaceable community in these provinces, and if we can take credit for that, there is scarcely any necessity for contrast with the more costly establishments of other parts of India. Before, therefore, sanctioning any increase

to the general force, the Lieutenant-Governor would wish the Inspector-General to consider and report whether it is possible to make any such re-distribution of the existing police as would enable him to strengthen those districts in which more men are required, without a general increase to the Police Department.

5. Since the expiration of the past year, the batta allowance granted on account of the dearness of provisions to constables in the two lowest grades in the reserve in Midnapore, Hooghly, Howrah, the 24-Pergunnahs and Moorshedabad has been extended to men of the same grades in the reserve in the district of Jessore. The Commissioner of Burdwan suggests the extension of the batta system to all constables in the fourth grade stationed in towns on the banks of the Hooghly, and also recommends an increase to the pay of the Howrah Police. Both these proposals can most conveniently be dealt with when considering the report which the Inspector-General will submit on the establishment of a separate force for large towns, and the Lieutenant-Governor will therefore postpone the consideration of them till the report is received. Any increase to the pay of the police in the town of Howrah would, the Lieutenant-Governor observes, involve an increase in the allotment of police in the municipal budget of that town, as in it the municipal police have not been amalgamated with the regular police, and only one-fourth of the charges on account of the force is paid by Government.

6. The reference made in the Report to the working of the Chowkidari Act is much more brief than in former reports, as the subject is now under separate consideration. The entire chowkidari system appeared to the Lieutenant-Governor to require revision, and he accordingly appointed a Commission to enquire into the matter. The Commission, after visiting various districts, and making all the necessary enquiries, has submitted a full report on the subject, which is now before Government. As the matter will be separately dealt with, the Lieutenant-Governor does not deem it necessary to allude further to it in the present Resolution.

7. The strength of the Railway Police was the same as during the preceding year. The orders of the Government of India on the Report of the Commission appointed to enquire into the working of the Government Railway Police on the East Indian Railway have been received, and the details will now be gone into. Mr. Lyall should report what special arrangements he would propose to make for the police on the other lines, on none of which, he remarks, is the present system found to be satisfactory. The strength of the Frontier Force remained unaltered during the year. Partly on account of the weakness of the force, and partly to rumours of threatened raids, 10 officers and 96 men were sent from various districts in Bengal to the Hill Tracts, and remained there until the rainy season was over. On a subsequent demand for reinforcements, as the force had fallen, owing to casualties, below its sanctioned strength, 6 officers and 124 men were sent.

8. The percentages of the officers below the rank of sub-inspectors, who could read and write, was lower than in 1881, the percentage having fallen in the case of head-constables from 82 to 80 per cent., and in the case of constables from 30 to 28. The decrease is attributed to the amalgamation, as the percentages amongst the municipal police were lower than those amongst the regular police. The Inspector-General reports, however, that many constables can now read and write, as well as speak, English.

9. It has been decided to substitute sniders for the carbines with which the police were armed. The cost of the weapons which the Government of India have been asked to supply will be Rs. 2,18,360, and the expenditure will be spread over three years, a portion only of the force being supplied with the new weapons each year. During the current year it is proposed to supply them to the police of 13 districts. The total outlay during the year on police buildings was Rs. 1,00,150.

10. The number of casualties in the force during the past year amounted to 3,949 or 15.8 per cent. of the entire force, as against 2,222 or 11.25 in 1881; of these 1.2 per cent. were due to retirement on pension or gratuity, as against 0.7 in 1881; 5.2 per cent. to resignations, as against 4.1; 3.4 per cent. were dismissed, as against 3.1; 2.4 died, as against 2 in the preceding year; 3 per cent. were discharged, as compared with 1.3; and 0.6 deserted, as compared with 0.05 in 1881. The increase under retirements is due to the fact that many of the old police have now served their time. The death-rate was

higher than during the preceding year, and exceeded the average death-rate amongst the entire population, which was 2.04 during the past year. The death-rate was highest in Burdwan and Hooghly, in which districts it was 5.5 and 5.1 per cent. respectively, as compared with 3.54 and 2.47 per cent. for the entire population of those districts. No doubt the excess is in part explained by the complete registration of deaths in the force, while that of the population is not complete; but even allowing for this, the mortality is high. In the Hill Tracts of Chittagong intermittent fever, with the consequent enlargement of the spleen and lung diseases, were the most prevalent complaints. The medical officer has made proposals regarding the improvement of the hospitals and barracks, and has recommended warmer clothing and a more ample supply of drugs. Water-proof sheeting has been recently supplied to the men as a protection against inclement weather and night camping, and the Lieutenant-Governor trusts that there may be a decrease in the number of cases of lung disease.

11. There was an increase in the number of punishments during the year, as compared with 1881. The following table shows the numbers during the last two years:—

	Judicial convictions under the Penal Code.		Under Act V of 1861.	Departmental punishments.
1881	355	243
1882	381	300

The punishments were more numerous than in 1881, owing to the amalgamation of the forces; but while the percentage under the last head, amongst both officers and men, was somewhat larger than in 1881, under the other two heads in both classes the percentages were slightly less. There were four cases of torture in which the police were implicated during the year. In three of these they were convicted and punished under the Penal Code. In the fourth, when the evidence for the prosecution broke down in the course of the trial, there were sufficient grounds for departmental action, and the police officers were dismissed from the service. The Lieutenant-Governor is glad to note that all these offenders met with their deserts. It is the very worst kind of offence of which a police officer can be guilty, and in every case of the kind the charge should be prosecuted to the end.

12. During the year Rs. 11,786, as compared with Rs. 8,126 in 1881, were distributed as good-conduct allowances, and at the close of the year 8,146 men wore good-conduct stripes, as compared with 7,238 at the close of 1881. The number of officers and men specially rewarded for courage, ability, or address was 2,307, as compared with 1,335 in 1881. The amount of the treasure escorted during the year was Rs. 13,77,97,442; none of it was lost.

13. There were 199 fairs held, at which over 3½ millions of persons were present. No serious offences, and only 151 petty offences, were reported. This gives about four offences to every 100,000 persons attending the fairs—a very satisfactory result.

14. In consequence of the Khond outbreak in Kalahandi, in the Central Provinces, which adjoins the Tributary Mehals of Orissa, police were sent from Cuttack and the Gurjhat Mehals to the frontier, and subsequently a body of 40 police were sent from Pooree. The latter force, Mr. Lyall reports, "started within an hour and a half of receipt of orders, fully equipped for service, and marched 53 miles under arms, each man carrying 40 rounds of ball ammunition and his kit, crossing four large rivers and one smaller, all in flood, in 66 hours"—a very creditable performance. The Lieutenant-Governor has already acknowledged the good services done by the police on and beyond the frontier on this occasion under Mr. Sandilands.

15. The report refers to the important duty of inspection. The tours of the Inspector-General and of the Deputy Inspectors-General appear to have included the head-quarters of all districts but two. Several sub-divisions were also inspected; but the Lieutenant-Governor gathers from the independent reports of the Commissioners of Divisions, which are quoted, that these inspections are too often very mechanical, and that especially as regards the tours of District Superintendents and Inspectors they are too much limited to the examination of books and registers of arms and accoutrements, and do not

touch the weightier matters of the working of the police. The Inspector-General has issued a circular upon the subject, and the Lieutenant-Governor would impress upon him the necessity of seeing that, with the aid of the Deputy Inspectors-General under his orders, the work of inspection is not restricted to the external appearance of things, but should embrace the more important considerations as to the extent and character of crime in different districts, the relations of the people towards the police, and the means by which the former can be better induced to co-operate with the Department in the suppression of crime, and in giving prompt information regarding its occurrence. A District Superintendent will do much more good in his jurisdiction by mixing with the people and securing their good will than in formally inspecting thannas. It is to be feared that there is still too much of antagonism between the people in the country and the police, and it would be worth while to try and overcome it.

16. As regards the general analysis of crime in these provinces, it is stated that there was an increase of 4,827 in the number of cases reported, as compared with the number reported in 1881; but the number was not much in excess of that in the two preceding years, and was less than in any of the years 1874 to 1878, though the number in 1877 only exceeded it by nine. The number of cases reported in each of the last nine years was as follows:—

1874 ...	...	126,122	1877 ...	...	108,989	1880 ...	...	108,275
1875 ...	...	120,838	1878 ...	...	113,621	1881 ...	...	104,153
1876 ...	...	117,559	1879 ...	...	108,771	1882 ...	...	108,980

Although there was an increase in the total number of cases, it is satisfactory to observe that were there only 320 more offences against property; minor offences against the person, and local nuisance cases, being mainly responsible for the increase shown. The Inspector-General considers that the decrease in the number of cases of offences against property, which has taken place since 1879, when there were 10,226 more cases than in the year under report, may be accepted as "a real diminution in this class of crime." The Lieutenant-Governor concurs with Mr. Lyall in thinking that there is no reason to consider that crime is now more frequently concealed than formerly, and he therefore accepts as satisfactory the decrease in the class of cases which most affect the welfare of the people. The favourable results are attributed by the Inspector-General to the prosperous condition of the people, the effective surveillance over bad characters, and the exemplary punishment of habitual offenders. After deducting from the total number of cases those declared to be false and those falling under Class VI (Public and Local Nuisance cases, &c.), the true cases during the past year amounted to 74,046, exceeding those in the preceding year by 1,498, while it was less than the number in any of the six years which preceded 1881.

17. The number of cases declared to be false was 7,753 in 1882, as compared with 7,549 in 1881; the percentage of such cases was almost the same as in the preceding year, the percentages being 7.1 and 7.2 respectively. The percentages in the different divisions varied from 3.6 in Bhagulpore to 12 in Orissa. As compared with the preceding year, there was an increase in the Chittagong, Burdwan and Patna Divisions, and a decrease in the other divisions. The large number of cases declared to be false in the Rungpore district is stated by the Magistrate to be "due to Magistrates accepting cognizable cases on petition which the police had refused, and sending them for enquiry, or to their accepting cases so exaggerated by mookhtears as to appear cognizable and ordering enquiry," and he exonerates the police from blame. Steps have, it is said, been taken to prevent the indiscriminate entertainment of such cases. The Lieutenant-Governor trusts that the measures adopted may have the desired effect, but care should be taken that the officers do not proceed to the other extreme and refuse to entertain cases which should be taken up. An explanation has been called for by the Inspector-General of Police of the large number of cases declared to be false in the district of Furreedpore, and the Lieutenant-Governor will await a further report on the subject when the information has been furnished. The percentage of the cases reported by the police to be false, but which the Magistrate found to be true, was 7.7, the same as in the preceding year. Circular No. 1 of 1877, regarding the treatment of reports of cases declared by the police to be false, was not, it is stated,

observed by the Sub-Divisional Officer of Brahmunberiah in Tipperah, and the Inspector-General attributes this to the fact that that officer was overworked. The Lieutenant-Governor is aware that Brahmunberiah is a heavy sub-division; but he finds that there was a second officer for 11 months of 1882 stationed there, and he cannot therefore accept the plea of overwork as a sufficient excuse for the Sub-Divisional Officer's non-observance of distinct orders. Criminal prosecutions were instituted in 1,442 cases, and in 491 cases convictions were obtained, the number of persons punished being 523. The largest number of prosecutions was instituted in the 24-Pergunnahs (105) and Jessore (102); convictions were, however, obtained in only 32 and 23 cases respectively. The best results were obtained in Chumparun, where the proportion of convictions to prosecutions was 48 to 75, and in Manbhoom, in which district, out of 33 cases instituted, convictions were obtained in 21. Comparing the results in divisions, the best results were obtained in the Patna Division, in which convictions were obtained in 49 per cent. of the cases instituted, and the worst in the Burdwan and Dacca Divisions, in which convictions were obtained in 25.3 per cent. only. The results in Behar were better than in Bengal. This the Inspector-General attributes partly to the fact that false cases are more cleverly concocted in Bengal, making it more difficult to obtain a conviction; and partly to only 14.8 per cent. of the false cases having been prosecuted in the former province, while 21.7 per cent. were prosecuted in the latter. The Commissioner of Dacca, in remarking on the amount of work entailed on officers in first trying the original case, and then the charge for making a false complaint, says that the work falls on the Joint-Magistrate, or full-powered Deputy Magistrates, and suggests that Magistrates exercising second class powers should be empowered to try persons charged with bringing false cases. Mr. Lyall does not think that the Legislature would be prepared to adopt the suggestion, and it is certainly not one which the Lieutenant-Governor could support. False cases are not usually of a simple character; they are, as Mr. Lyall observes, for the most part carefully prepared, and have a certain amount of truth mixed up in them, and it is necessary that the officer trying the persons instituting such cases should have more experience than an officer exercising second class magisterial powers would be likely to possess. Mr. Lyall would extend the power which Magistrates now have of granting compensation under section 250 of the Code of Criminal Procedure in summons cases to more serious cases. The Lieutenant-Governor is not satisfied that this would have the desired effect in stopping the institution of false cases. It would no doubt furnish a more summary procedure, which Mr. Lyall thinks might with advantage be substituted for the formal trial of persons bringing false complaints, and in some classes of cases it might be well if judicial officers had such powers: but as a rule the institution of a false charge is an offence which demands a severer punishment than a mere fine, which is what the award of compensation to be paid by the complainant in the original case practically amounts to. It is true that in more serious cases the complainant could be prosecuted; but with the alternative of the easier procedure before them, Magistrates would be liable to adopt it, and thus save the trouble and delay of a regular trial, and persons who deserve a substantial punishment would escape with a mere fine, and that perhaps a nominal one; while on the other hand such a rule might operate as a deterrent to *bona fide* complaints. The Lieutenant-Governor is not disposed to criticise very minutely the actual results of the prosecutions which have been instituted. He considers, as has already been stated on previous occasions, that the mere institution of a case against the person bringing a palpably false complaint is in itself of benefit, whether a conviction follows or not; and he thinks that prosecutions might with advantage be instituted in such cases more freely than they are at present, even if the result is, as it too frequently must be, a decrease in the percentage of convictions obtained.

18. There has been a gradual increase in the number of cases not enquired into, the numbers being 1,659, or 1.5 per cent., in 1879; 2,389, or 2.2 per cent., in 1880; 3,692, or 3.5 per cent., in 1881; and 4,004, or 3.6 per cent., during the past year. The percentage of cases of hurt not enquired into was 32.9, as compared with 28.3 in 1881 and 11.2 in 1880. Out of the 4,004 cases in which the police refused to enquire in the first instance, enquiry was in 178

cases ordered by the Magistrate. Simple hurt having, under the new Code of Criminal Procedure, been made a non-cognizable offence, such cases will now be omitted from the number of cases shown as not enquired into, and there will probably therefore be a failing off in the number shown in the Report for the current year. The Lieutenant-Governor is glad to observe that the Inspector-General is able to report that the procedure of the police under section 117 of Act X of 1872 was generally correct. The number of cases not enquired into in Shahabad amounted to nearly 29 per cent. of the total number of cases not enquired into in these Provinces. As, however, out of 1,153 such cases, 1,146 were cases of hurt, the large proportion does not call for any special remark.

19. The number of cases enquired into during the year, including direct cases in which no investigation was made by the police, was 99,165, as compared with 94,462 in 1881. Excluding 10,720 cases which were taken up direct by Magistrates, the number enquired into by the police was 88,445, as compared with 83,857 in 1881 and 87,764 in 1880. The percentage of convictions in these cases was slightly better than in the two preceding years, being 47.7, as compared with 46.6 in 1881 and 46 in 1880. The Inspector-General brings to notice the different way in which, under the different Local Governments, direct cases, that is cases which are taken up by the Magistrate without the intervention of the police, are treated. In Bengal and the North-Western Provinces direct cases, as well as those enquired into by the police, are shown in column IV of Form A, Part I; in column VII only those direct cases which are enquired into are shown in Bengal, while in the North-Western Provinces all direct cases, whether enquired into or not, are entered; in the Central Provinces direct cases are entered in column IV only; in Bombay the practice varies in different districts; while in Madras and the Punjab direct cases are not shown in the statement at all. Such varieties of practice render comparisons between the returns for different provinces difficult and misleading. It is clear from its heading that Statement A, Part I, was intended to be a return of all cognizable crime. As no information was given in Form A, Part I, regarding the number of direct cases in which convictions were obtained, the Lieutenant-Governor has recently sanctioned the addition to it of a column,—column V(a)—in which will be shown the number of convictions in cases shown in columns IV and V, and by deducting the number of convictions in cases into which the police enquired which is shown in the statement, the number of convictions in direct cases can be ascertained.

20. During 1882 the number of persons under arrest amounted to 103,678, as compared with 98,576 under arrest in the preceding year. Of these, 100,888 persons appeared before a court, and 96,769 were actually tried. Of the latter, 64,372, or 62.1 per cent. of those arrested, were convicted, as compared with 60,965, or 61.8 per cent., convicted in 1881. The percentage of persons convicted to those tried was 66.5, as compared with 66.2 in 1881. The percentages were highest in Darjeeling (82.6), Patna (81.5), Howrah (78.2), Cuttack (75.3), Singbham (74.5), Gurjhats (74), Bhagulpore (71.8) and Durbhunga (70.4); and worst in Furreedpore (46.4), Pubna (48.8), Jessore (51.5), Midnapore (53.5), Mymensing (54.4), Rungpore (54.6) and Backergunge (55.3). The Inspector-General attributes the bad results in Furreedpore to the delay in disposing of cases in that district. He also refers to Pubna and the sub-divisions of Patuakhally and Brahmunberiah as exhibiting similar delays. The subject has been already brought to the notice of Government, and the special attention of all district and sub-divisional officers has been drawn to the matter. The work in the Furreedpore district is heavy, and an addition to its staff may become necessary; but it is clearly the duty of all district officers more carefully to supervise the work of their subordinates in this respect and to insist on cases being more promptly disposed of. As compared with the number of cases investigated, the percentages of cases in which convictions were obtained were highest in Howrah (77.6), Darjeeling (68.8), Patna (67.5) and Hooghly (66.4); the lowest being in the Sonthal Pergunnahs (21.5), Gya (22.1), Rungpore (25.6) and Manbham (30.6). In cases of serious offences against the person, the percentage was highest in Darjeeling (60.7) and lowest in the Chittagong Hill Tracts (20). In cases of serious offences against

property, excluding the Chittagong Hill Tracts, in which the cases were few, the best results were obtained in Beerbboom, where the percentage of cases in which convictions were obtained was 22.8, and the worst in Gya, where it was only 4. In cases of petty offences against property, the percentage varied from 63.2 in the Gurjhats and 52.9 in Howrah to 23.6 in Manbboom and 21.5 in the Sonthal Pergunnahs.

21. The results in the cases committed to the Courts of Sessions were again unsatisfactory. Not only was the number of convictions low, but the percentage of convictions on the number tried was smaller than in any of the six preceding years, being 59.1, as compared with 60.2 in 1881, 60.6 in 1880, 64.5 in 1879, 60.4 in 1878, 61 in 1877 and 63.1 in 1876. In five districts, viz. Noakholly, Furreedpore, Julpigoree, Moorshedabad and Patna, the percentage of convictions was below 40; in Noakholly it was only 18.8 per cent. In 20 districts the percentage was below 58. Mr. Lyall remarks: "In the five chief jury districts of Hooghly, the 24-Pergunnahs *cum* Howrah, Burdwan, Dacca and Patna, 141 persons were tried before the Sessions for murder and culpable homicide. Of these, 44 were convicted and 97 were acquitted. These figures speak for themselves, and show, I think, that, in the interests of justice, cases under chapter XVI (*of the Penal Code*) should be withdrawn from the operation of the jury system, or at least cases under sections 302, 303, 304, 307, 308, and 396, to which the above figures relate. I have no hesitation in asserting, even in the face of the above figures, that in the more serious forms of crime the action of the police is so looked after, and the investigating officers themselves are so afraid of sending up cases wrongly, that it is the exception to have an innocent man sent up by the police in a murder case. I do not assert that in all cases there is judicial proof, but what I do assert is that, with very few exceptions, there is such proof found locally—not necessarily all legal evidence—as to leave no doubt in the mind of the investigating officer as to the guilt of the person sent up. After leaving the hands of the police, the case has to pass the ordeal of the preliminary enquiry, where the action of the police is fully gone into, and where there is again the same fear of committing cases that will not stand before the Sessions. A false case thus stands but little chance of ever getting before the Sessions Court. Under the sections above quoted, 1,275 persons were sent up by the police in the whole Province. Three hundred of these were discharged by Magistrates, 303 were finally convicted, and 400 were acquitted. The rest, 272, were pending trial or otherwise disposed of. Thus out of 699 persons under these sections, whose cases were disposed of by the Sessions Court four were convicted by a Magistrate and are omitted), 400, or 52.2 per cent., were acquitted, while in the jury districts, as above shown, 97 persons out of 141, or 68.8 per cent., were acquitted. The percentage of acquittals for the whole Province in all cases is 40.9; so that even in non-jury districts it is clear that Judges are very chary of convicting in murder cases; while, as shown above, a conviction in a jury district is next to impossible." The Lieutenant-Governor sees no reason to doubt that in the class of cases to which the Inspector-General refers, the probability is that in almost every case finally committed to the Sessions, the evidence against the accused is so far established in the primary enquiries as to warrant his being committed: but this is a different thing from the conclusion that it should justify his conviction; and the Lieutenant-Governor is not disposed, in consequence of the worse results of the trials of such cases in the jury districts, to recommend at present the withdrawal of such cases from the jury system. The unwillingness of juries to convict in serious cases involving the issues of life and death may sometimes have been the cause of failures of justice, which would not have occurred had the persons been tried by a Judge and assessors. What is now complained of is not, it must be remembered, a new thing. It has been a charge against the system of trial by jury from the first; but it by no means follows that the unsatisfactory results on the trial of murder cases by jury is solely owing to the unwillingness of the jurors to convict in a case where a capital sentence would probably be passed. It is in the experience of the Lieutenant-Governor that jurors look with much greater strictness into the evidence and to the conduct of police officers than unassisted Judges used to do; and it is much better that it should be so, notwithstanding an occasional miscarriage of justice. The over-scrupulousness of

juries, if such it may be called, should have its effect on the action of the police and upon the investigations made in Magistrates' courts, with results which can be only beneficial. It is probable that in time a better class of jurors will be available, and in this respect there is, in the Lieutenant-Governor's opinion, very much room for improvement. In the meantime stricter attention to the orders issued, regarding the commitment of cases to the Sessions, and less delay in the preliminary enquiries in the Magistrates' courts, are matters which demand attention. There can be no doubt that the time over which these preliminary enquiries are spread is a fruitful source of the escape of criminals, as it affords so many opportunities, not only of tampering with the evidence produced, but of rendering it possible for a skilful advocate to break down, or at all events materially to weaken, the evidence of a witness who is honestly intending to tell the truth. The Lieutenant-Governor will therefore expect District Magistrates to supervise the proceedings of their subordinates in this respect with greater closeness, and to do their utmost to prevent anything, in the way of delay, that can be avoided in the committal of cases to the Sessions.

22. Property was stolen in 32,032 cases, as compared with 31,468 in 1881. In 11,091 cases, as against 10,327 in the preceding year, the whole of the property stolen was recovered, and in 3,620 cases, as compared with 3,637 cases in 1881, a portion of it only was recovered. The total value of the property stolen was Rs. 8,80,388, as against Rs. 9,25,632 in 1881, and of this, property to the value of Rs. 2,45,803 was recovered, as against property to the value of Rs. 2,36,909 in 1881. The results show an improvement, as not only was there an increase in the percentage of the amount recovered from 25.5 to 27.9, but the percentage of cases in which property was recovered rose from 44.3 to 46.3; and this, as Mr. Lyall points out, is the better test of the efficiency of the police, as it is not materially influenced by success or failure in a single case in which the value of the property stolen is large.

23. The following statement shows the number of true cases under each of the different classes for the last seven years:—

		1876.	1877.	1878.	1879.	1880.	1881.	1882.
Class I...	Offences against the State and public tranquillity	2,700	2,818	2,785	2,840	2,639	2,427	2,508
" II...	Serious offences against the person	4,108	4,141	4,267	3,976	4,061	4,301	4,267
" III...	Ditto ditto person and property, or against property only	22,280	20,667	23,887	20,602	18,953	19,051	18,520
" IV...	Minor offences against the person	9,973	8,812	9,554	9,608	10,874	11,096	12,459
" V...	Ditto ditto property	85,832	41,095	45,549	42,442	38,859	35,673	36,301
" VI...	Other offences not specified above	18,257	16,548	14,407	17,406	22,109	20,615	25,069
	Offences under special laws	495	480	589	1,238	1,977	2,041	2,082

Under class I there was an increase of 81 cases, which was almost entirely due to an increase in the number of cases of rioting. The increase would have been still larger had it not been in part counterbalanced by a falling off of 98 in the number of cases of harbouring offenders and other offences against public justice. Under class II there was a slight decrease. Under class III there was a decrease of 531 cases. The most marked decrease was 120 in cases of serious mischief, and 448 in cases of house-breaking. Under class IV there was a net increase of 1,354 cases; this was due to an increase of 1,376 in the number of cases of hurt. Under class V there was an increase of 628 cases, the chief increase being 494 in the number of ordinary thefts, 98 in the number of cattle thefts, and 102 in cases of trespass. Under class VI there was an increase of 3,084 cases. The principal increase was 2,349 cases under the head of local nuisances, 617 excise cases, 96 railway cases and 79 vagrancy cases. There was only a nominal increase in the number of cases under other special laws.

24. There was a falling off in the percentage of cases under class I in which convictions were obtained, the number being 43.2 as compared with 50.6 in 1881. The percentage of persons convicted was 55.5 as against 57.9, which does not show such a falling off as there was in the percentage of cases; more persons were, however, pending trial at the close of the year than at the close of 1881. The only cases under this class which call for any special notice are those under the head of rioting. There was an increase of cases of this nature of 174 as compared with the preceding year, though the number

only exceeded the number in 1880 by 28, and was less than the number in either 1879 or 1878. As compared with the figures for 1881, there was a decrease in five divisions, the largest being a decrease of 49 cases in Chittagong. In the Patna Division the number was the same as in the preceding year. In the Rajshahye and Orissa Divisions there was a small increase, while in the Dacca Division there was a large increase of 214 cases, the total number of rioting cases in this Division having risen from 360 in 1881 to 574 during the past year. Mr. Lyall considers that there is no doubt that the uncertainty about the alteration of the Rent Law has had a disturbing effect in Eastern Bengal, and especially in Mymensingh. Regarding Mymensingh, the Commissioner remarks: "Many unions have been formed among bodies of tenantry in various pergunnahs of the district. These unions so formed resisted all attempts on the part of the landlord and their employés to realize rents, and the proceeding of any of the zemindars' people into the villages banded in union was followed by a riot ending generally in the eviction of the zemindars' people." The Commissioner considers that a strong police is required in Mymensingh to cope successfully with this form of crime, and that the present force is too weak. The strength of the police in this district has already been referred to in paragraph 4 above, and the subject will be duly considered on the receipt of the report which, as therein stated, the Inspector-General will be called on to submit. The cases of rioting in Mymensingh and Backergunge are not new features in the criminal statistics of Eastern Bengal, but the recent increase in the number of such cases deserves notice. There were 302 cases instituted, and out of 293 true cases convictions were obtained in only 65 instances. The Commissioner observes that "the low percentage of convictions is due in some measure to the difficulty which exists in getting good evidence when the riot has been caused by the villagers themselves, in which case no independent evidence can be procured. The case for the prosecution depends entirely on the evidence of the zemindars' people who were attacked." To some extent this may account for the bad results, but the Lieutenant-Governor believes that it may also fairly be attributed to the fact that the police were not employed to enquire into a sufficient number of the cases. It appears that out of 263 true cases, only 166 were investigated by the police. Why this should have been so is not explained, but the Lieutenant-Governor concurs in Mr. Lyall's opinion that the police should, in a district like Mymensingh, be much more largely made use of than they were during the past year. The Magistrate should also consider whether a judicious application of the provisions of section 107 of the Criminal Procedure Code to the leading men in the unions would not prevent such a frequent recurrence of these cases. In the absence of information as to the nature of the demands, it is impossible to say whether the zemindars or the ryots are primarily the cause of such disturbances of the public peace. The withholding of legitimate and usual rents admits of no defence, but the facts are not always so; and the Lieutenant-Governor fears that extortionate demands, and demands at enhanced rates not sanctioned by law, are as often the cause of these violent aggressions. These are questions which the police have no authority to enquire into, but it is not to be tolerated that men should band themselves together for the purpose of resisting lawful claims. If illegal demands are made, the civil courts afford the proper means of redress, and these "jotes" or unions should be clearly given to understand that no question as to the possible alteration of the Rent Law in any way relieves them from their present liabilities. In Backergunge the number of cases rose from 105 in 1881 to 116 in 1882, and five were attended with fatal results. The percentage of convictions to cases fell from 85·6 in 1881 to 50 in 1882, but this is higher than the percentage in either Furreedpore or Mymensingh, and, as the Inspector-General remarks, the results in 1881 were too good to continue. During the year 100 extra police from other districts were posted in Furreedpore, but the number of cases rose, notwithstanding, from 77 to 83, and it seems probable that but for the precautions adopted the results would have been worse. Though the total number of cases of rioting fell in the Burdwan Division from 180 in 1881 to 167, there was a marked increase in the number of cases in Hooghly, the number being 56 as compared with 40 in 1881. The number of cases in this district has steadily increased each year from 17 in

1878 till it reached the number above stated during the past year. The large number of cases is said to be due to the competition for land in the district. The Inspector-General and all Commissioners of Division should direct their special attention to the subject. If the Police and Magistrates of Districts do their duty, there is no reason why these offences should not be as generally suppressed as the more violent forms of crime against property by gang dacoity. Two serious cases of rioting occurred in Pubna—one in Serajgunge, in which a man was killed, and the other at Dulai, in which the men of a zemindar named Azim Chowdhry resisted the attachment of his property under an order of the civil court. The latter case, which was an illustration of the extent to which a powerful and wealthy zemindar can carry his defiance of constituted authority, has already been dealt with at length by the Lieutenant-Governor.

25. Under class II, serious offences against the person, there was a decrease of 25 in the number of cases of murder, there being 271 cases in 1882, as against 296 in the preceding year. The number of attempts at murder also fell from 53 to 38. Under the head of culpable homicide there were 179 cases—a decrease of 29 cases, as compared with the number in 1881. In accordance with the orders of the Government of India, contained in their letter No. 23—1542, dated the 19th October 1882, special details were called for in the cases in which mothers murdered their infants, and in accordance with the requisition, Mr. Lyall has given the following details:—

“There were three cases in the Rajshahye Division, none of which perhaps are of the kind of which details are required by the Government of India: still I mention them. The first took place in Julpigoree; the child was about 18 months old, and was fretful and peevish. The mother lost her temper at its crying, and cut its throat: she afterwards tried to do the same to herself. She was sentenced to transportation for life, and died on her way to the Andamans.

“Two occurred in Rungpore. In one case the mother killed the child to spite her husband, and in the other because it annoyed her when ill. One woman committed suicide; the other was transported for life.

“A case took place in Chittagong, which is not unlike the case which gave rise to the call of the Government of India. A Mahomedan girl had an intrigue with her brother-in-law, and when married was found by her husband to be in the family way. He therefore sent her home, where she gave birth to a girl, which she killed, and her relations concealed the body. She was sentenced to transportation for life.

“There were two cases in Mozufferpore, and in both cases the mothers were sentenced to transportation for life. In the first case the murderer was committed apparently to spite the husband, and in the second on account of poverty. Both were legitimate children.

“In Sarun a beggar woman gave birth to an illegitimate child, and in a few days killed it. She was transported for life.

“Three cases occurred in Gya. In one case the woman was acquitted, in the second she died after committal, and in the third a sentence of six months' rigorous imprisonment under section 318 was inflicted.

“One case took place in Cuttack, and was pending before the Sessions at the close of the year. The mother was a widow, and she left the child where she gave birth to it—in a turmeric field. The child was found alive, but died.

“There were three cases in Pooree, and in all illegitimate children were murdered. In all three the mothers were sentenced by the Sessions Court to transportation for life, but one was afterwards acquitted by the High Court.” No action was taken by Government in any of these cases in the way of reducing the sentences passed on the women who were convicted.

26. As compared with 1881, cases of rape decreased from 196 to 155, and of exposure of infants from 105 to 97. Attempts to commit suicide fell from 427 to 391, administering stupefying drugs from 19 to 16, causing hurt by means of dangerous weapons from 922 to 910, and cases of selling minors from 16 to 13. On the other hand, there was an increase from 46 to 63 in the number of unnatural offences, from 609 to 655 in cases of grievous hurt, from 185 to 251 in cases of abduction and kidnapping, from 99 to 180 in cases of wrongful confinement in secret or for purpose of extortion, from 1,024 to 1,028 in cases of using criminal force to women with a view to outrage their modesty,

and from 68 to 74 in cases of causing death by rash or negligent acts. There was a falling off in the percentage of convictions in cases under class II, the total percentage of convictions during 1882 being 45.1, as compared with 41.2 in 1881, while the percentage of the convictions to persons tried by the Court of Sessions fell from 56.4 in 1880 and 52.2 in 1881 to 45.2—a worse result than in any of the four years preceding that under notice. In one case of murder in Purneah, the murderer, who, on account of an intrigue with his widowed daughter-in-law, had been fined by the punchayet, killed his whole family of seven persons, including the daughter-in-law, who was *enciente*, and then hanged himself. In another case in Pooree, in which the accused was sentenced to death, he was acquitted on appeal by the High Court. From the evidence and the confession of the accused, it appears that he held a child under water in a hole which he had dug, until he had drowned him; the motive being to obtain possession of his ornaments. In the Orissa Division, as regards cases of this description, there appear to have been remarkable differences of opinion between the local and appellate courts. Four cases of murder are noticed, in which the High Court on appeal have reversed the finding and sentences of the Sessions Court, and acquitted the accused; in one especially they have passed severe strictures on the Pooree Police, and the matter is being enquired into. The Lieutenant-Governor desires a full report on the matter when the enquiries have terminated. Assuming, from the statements in the Inspector-General's report, that the cases in these instances were true ones, the final acquittal by the High Court would seem to indicate that the failure of justice arose from the irregularities committed in the earlier proceedings. Murders connected with suspicion of witchcraft against the victims still find some prevalence in the Chota Nagpore Division. In another case the crime resembled an Irish one, the person murdered being shot from behind a wall in consequence of an agrarian dispute. It is satisfactory to notice a decrease in the number of cases of poisoning; most of the cases are reported to have had no connection with professional poisoners. These results are due to the steps taken to put down professional poisoning, to which allusion was made in the Resolution on the Report for 1881. In connection with a case of administering stupefying drugs which occurred in Durbhunga, several old cases were brought to light; the man who was the chief of the gang was arrested, and the Inspector-General trusts that his arrest will lead to the gang being broken up.

27. Under class III there was an increase of 16 in the number of cases of dacoity, there having been 121 cases in 1882 as compared with 105 in 1881. At the same time it is a pleasing contrast to the past history of the crime in Bengal to be able to record that 13 districts were entirely free from dacoity. The crime is now of a different type and very much localised. The largest number were committed in the Rajshahye Division, in which there were 32 cases, and in the Burdwan Division, in which there were 27. In his report for 1881, the Inspector-General stated that labourers employed on the construction of railway lines were, he believed, the offenders in some cases, and this theory has received confirmation by the arrest, since the close of the past year, of a large gang of such persons in possession of property stolen in a dacoity. With the exception of three circles, viz. the Rajshahye circle, the Midnapore circle and the Gya-Hazaribagh circle, the Inspector-General does not believe that dacoity is elsewhere systematic. In the Rajshahye circle the gangs are believed to be chiefly up-country men working on railways. A special Inspector has been deputed to look into the cases in this circle, and Mr. Lyall hopes that he may be able to obtain a clue to the persons who committed the dacoities during the past two years. The Midnapore circle comprises Midnapore, the 24-Pergunnahs and Hooghly; and the bad characters in these three districts appear to work together. Hooghly has perhaps supplied more convicted dacoits to the Andamans than any other district, and it would be matter for regret if, after years of tranquillity, there should be any revival of the profession. The Lieutenant-Governor is not exactly aware of the duties which appertain to the office of Deputy Inspectors General; but it seems to him that in cases of the kind under notice, where gang robberies are committed by a body of men, operating apparently in combination from different neighbouring districts, the special deputation of one of these officers to investigate the whole circumstances of the case would be of advantage. The duty imposed

upon the officer so deputed should not be the submission of a conventional report after a few days' inspection, but should be to remain in the tracts affected until some discovery has been made of the character and numbers of the gangs, and the measures necessary for their dispersion or arrest. Unity of action is necessary where several districts are concerned, and this can best be secured under the supervision and direction of a single officer of the rank and position of a Deputy Inspector-General. The Lieutenant-Governor would wish the adoption of this course in the so-called Midnapore circle during the ensuing cold weather. An officer of Mr. Baker's experience, or of Colonel Fagan's activity, should be able in a couple of months to bring to light many ways in which this systematic kind of violent crime should be dealt with; and under any circumstances their employment on such duty would be of more practical uses than the inspection of accoutrements and the revision of registers at head-quarters in Calcutta. The value of the property stolen by dacoits during 1882 amounted to Rs. 53,490, of which property to the value of Rs. 7,358 was recovered, as compared with property to the value of Rs. 33,031 stolen, and property worth Rs. 1,750 recovered during the preceding year. There were only 122 cases of robbery, as compared with 147 in the preceding year. Serious cases of mischief fell from 748 to 628. Mischief by killing animals increased slightly, there having been 730 cases during 1882, as compared with 712 in the preceding year. The cases were most numerous in those districts in which a trade in hides is carried on. The decrease in cases of house-trespass will be noticed further on. The result of trials of cases of "serious offences against person and property, or against property only," was not satisfactory, the percentage of convictions to cases being only 10.2, to persons arrested 45.6, and to persons tried 49.3.

28. There were 9,590 cases of hurt under class IV, as compared with 8,214 during the preceding year. Of these, 2,812 were taken up direct without the intervention of the police, enquiry was refused by the police in 3,203 cases, and enquiry was made by them in 3,575 cases. Cases under section 323 of the Penal Code are now, as already remarked, no longer taken up by the police. Under the head of wrongful restraint there was a decrease of 35 cases, the number being 2,731 in 1882, as compared with 2,766 in the preceding year.

29. There were 16,913 cases of burglary during the year, as compared with 17,333 in 1881 and 17,428 in 1880; convictions were obtained in 1,430 cases, or 8.5 per cent., as compared with 1,321, or 7.6 per cent., in the preceding year. The number of persons tried was 3,678, of whom 2,040, or 55.5 per cent., were convicted, as compared with 3,335 persons, of whom 1,899, or 56.9 per cent., were convicted in 1881. Concerning burglaries, Mr. Lyall, after giving the figures from which the above are taken, writes: "These figures show the greatest blot in the police work of the province. About 17,000 cases of burglary occur each year, and only about one in 12 of these is prosecuted to a successful termination. Detective skill is in fact wanting, and hence the necessity for the attention which has of late years been given to prevention." The results in such cases are very bad: still it is so far satisfactory that the decrease in the number of cases, as compared with 1880, which was observable in the figures for 1881, was even more marked in 1882. The frequency of the crime is not a matter of surprise, where the only implement the burglar wants is a piece of iron to effect his entry through a mud wall or a thatched hut; and the greater temptation to the crime is perhaps induced by the immunity which the offender enjoys at the hands of the police. The Patna Division is especially notorious in this respect, where in the past year, out of 5,429 true cases, only 6.7 per cent. were prosecuted to a conviction. There is here, too, more than a suspicion that the concealment of the crime is very prevalent. The Lieutenant-Governor is glad to find that the Inspector-General's particular attention has been directed to the subject. There were 23,519 true cases of theft, as compared with 23,025 in 1881, and the number of cases of cattle-theft increased from 1,469 to 1,567. Cases of receiving stolen property, on the other hand, decreased slightly, there having been only 1,754 cases in 1882, as compared with 1,776 in 1881.

30. The number of cases under class VI, dealing with offences against special or local laws, amounted to 25,099, as compared with 22,015 in 1881 and 22,109 in 1880. There was a decrease of 81 in the

number of salt cases, and an increase in the number of local nuisance, Excise, Railway Acts and vagrancy cases. With the exception of five districts, the orders that each person tried in the latter class of cases is to be shown as a separate case were carried out, and the necessary instructions have been given to the District Superintendents in these districts in which the orders were not attended to. Out of 1,121 true cases, 1,040 were investigated, and in 71·6 per cent. convictions were obtained, as compared with 61·2 per cent. in 1881. These results are satisfactory. Of the bad livelihood cases instituted, 976 were instituted on report of the police, and 153 were instituted on petitions presented to the Magistrate. Mr. Lyall considers that cases of bad livelihood are a dangerous class of case to be allowed to be instituted privately. It may be that the power to make such charges does afford an opportunity to villagers to harass and annoy any one with whom they may not be on good terms; but unless all institutions were limited to cases in which the police, from their immediate and direct personal knowledge of the accused, reported against a man of bad character, there would not, it appears to the Lieutenant-Governor, be any advantage or security gained by prohibiting the direct institution of such cases. If the complaint was made to the police, they would have to make an enquiry as much as the Magistrate; and it is difficult to see why the enquiry made by the latter should not be as effective as the enquiry by the police. In some instances there was very great delay in disposing of bad livelihood cases. In Jessoore there were three cases pending—one 382 days, the second 357 days and the third 346 days; in Khoolna one was pending for 313 days; and in Furreedpore one was pending for 305 days. It is quite unjustifiable to keep such charges pending over people for such long periods. Special reports will be called for from the Magistrates regarding the very great and apparently inexcusable delay in these cases. With a view to reducing the large amount of extra duty which the surveillance of bad characters entails on the police, Mr. Lyall has directed a reduction in the number of names on the registers by omitting those of many persons who do not belong to the criminal classes. Mr. Lyall on this point remarks: "In each district I have inspected, I have gone carefully through the bad character registers of one or more stations, and have generally been able to point out the possibility of reducing the number of persons under surveillance without, I hope, giving the really criminal classes any greater facilities for crime. It is quite unnecessary to keep a watch over men who have once committed a petty theft, but who have in no way adopted a criminal life, and by striking off all such, the police have more time to attend to the real criminals. What should be impressed on all Magistrates and District Superintendents is the necessity of having under supervision, not the men who formerly have committed crime, but those who are doing so to-day, and that it is sheer waste of time and energy to continue enquiries solely because a man has once been convicted, irrespective of his subsequent manner of life." The Lieutenant-Governor entirely accepts the views expressed by Mr. Lyall. A careful revision of the registers should be made; the police should be relieved of a great deal of the duty which is not only useless, but endangers the liberty of people who, by reformed habits of life, should no longer be objects of suspicion.

31. The number of Excise cases was 3,031 as compared with 2,414 in 1881 and 2,994 in 1880. There were 284 cases of illicit distillation, as compared with 359 in the preceding year, and of these 117 occurred in Beerbboom and Midnapore. There were 626 cases in which the offence was the illicit possession or sale of country spirit, 567 of opium, 520 of ganja and 764 of tari. Only 425 vendors, as compared with 828 in the preceding year, were prosecuted. The percentage of convictions in cases was 76·1 as compared with 73·2 in 1881, and of persons 79·6 as compared with 81·6 in that year. There were 1,284 salt cases, as compared with 1,213 in the preceding year; and out of 1,409 persons arrested in connection with these cases, 1,263 were convicted, 168 maunds of salt were confiscated, and Rs 4,330 were realized on account of fines. The Inspector-General refers to the cases of some fishermen prosecuted under section 283 of the Penal Code, for causing obstruction in a line of navigation by fishing in the Hooghly and Bidyadhuri rivers with fixed nets. Mr. Lyall remarks: "Several fatal accidents have taken place in consequence, and there can, I think, be no reasonable doubt that men have no right to fish in a method that has been proved to be dangerous to

navigation and to human life, however long they may have done so when the river was less crowded." Looking to the large amount of traffic on the river Hooghly, the Lieutenant-Governor ordered an enquiry into the case, and rules have been passed regulating the use of such nets in future.

32. The Report treats of the attempts to settle the Mughya Domes in Chumparun. This clan is one which has always given considerable trouble to the police on account of their nomadic habits and thievish propensities. They did no work, and went from place to place stealing wherever and whatever they could. The matter was fully investigated by Government, and it was decided that an attempt should be made to induce these people to settle down. The following extract from the report of the Magistrate of Chumparun, which is quoted by Mr. Lyall, shows what has been done:—

"In May the Inspector of Bettiah, Nakai Lall Misser, succeeded with some trouble in procuring an interview with some Domes through the instrumentality of some of their women. The result was that they signified their willingness to live in any place selected for the purpose. Two sites were selected—one at Bargaon, near the Bagaha station, and the other at Futtahpore, near the Jugaputti outpost of the Bettiah station. At these places lands were procured from the zemindars, who likewise supplied the materials with which the Domes erected huts for themselves. From that time the number of Domes at these places has been steadily increasing, until at the present time there are 172 men, women and children at Bargaon, and 66 at Futtahpore. At Bargaon arrangements were made to provide the Domes with land, and a grant of Rs. 500 has been sanctioned by Government to provide them with cattle, ploughs and other implements of agriculture. This is gradually being done. Some of the heads of the Domes have been appointed village chowkidars with the approval of the villagers. Steps have been taken to provide them with work in the fields, and at the present time the condition of the settlements is satisfactory. The Domes have, with but little assistance, succeeded in maintaining themselves, and there is every hope that they will continue to do so with a little management. The settlement is, however, merely on its trial; whether it succeeds or not remains to be seen."

From a more recent report received by Government from the Commissioner of the Patna Division, it appears that the number of Domes who have settled at Bargaon has increased to about 250, and those at Futtahpore to about 90. In time it is hoped the settlers will support themselves without any assistance from Government. They cannot, however, be expected to do so at first, and in addition to the Rs. 500 at first sanctioned, Government has recently given an additional capitation grant of Rs. 3 per head, or Rs. 1,050. The later reports are extremely satisfactory, and justify the expectation, which the local officers entertain, of complete reformation of the tribe. The principal difficulty has been to induce a nomadic people to take to settled habits and work, but when once a beginning is made, it should not be an arduous task to induce them to remain. The fact that since the establishment of the two colonies the number of persons in each has increased shows that for the present, at any rate, they are willing to abandon their former wandering ways, and if they can only be induced to remain, and take up agricultural pursuits, the best results may be anticipated. The same success has not, it appears, been realized in Sarun, and the Commissioner thinks that, "so long as proper measures are not adopted in the contiguous districts of the North-Western Provinces regarding the settlement of these wandering tribes, any measure to domicile them in the Behar districts can only be partially successful." Mr. Lyall is now in communication with the Inspector-General of the North-Western Provinces and Oudh on the subject, and the Lieutenant-Governor will be glad to learn the result of the correspondence. Now that the authorities in Sarun are adopting the measures which so far have succeeded in Chumparun, the future reports of the experiment may be more satisfactory, especially as it appears that the Domes from Sarun have, since the close of the year, been going to the settlements in Chumparun. Much of the credit of the success here is due to the active interest which Mr. Henry, the Magistrate of the district, has taken in the work.

33. The number of non-cognizable offences was 101,691, or 1,804 less than in the preceding year. Out of 107,543 persons summoned, 80,808 actually appeared, of whom 59.5 per cent. were convicted. The percentage was slightly higher than in 1881, when it amounted to 58.4. In the Patna Division the number of salt cases rose from 595 in 1881 to 1,287 in the past year. Before 1881 the average number of cases yearly was only 82. Mr. Lyall remarks that the number of salt cases has greatly increased since the working of the law was

made over to the North-Western Provinces Central Agency; most of the cases are, however, said to be petty and to end in conviction. The Commissioner, the Inspector-General reports, does not complain of any undue severity in the institution of these cases. The large increase seems, however, to indicate either great laxity formerly, or unnecessary strictness at present, and the Commissioner should not neglect precautions against indiscriminate prosecutions. The police were employed in enquiring into 6,495 non-cognizable cases, or nearly 6·4 per cent., as compared with 5·8 percent. in 1881. In the Rajshahiye and Cooch Behar Division the Inspector-General reports that the police has been used far too freely in investigating petty municipal cases, and the Lieutenant-Governor will await the explanation which Mr. Lyall has called for.

34. Regarding the measures taken for the supervision of criminal tribes, Mr. Lyall remarks—

"Again, no Bediya is reported to have been convicted of burglary in the Presidency Division, and the same supervision continues over them. Two gangs of *mochies* were convicted in Jessore—one of theft, and the other of dacoity. The Punka Chur Kayasts continue to be watched, and measures have been taken to improve the supervision over the Furreedpore Kayasts. One gang of these men was partly convicted during the year at Dacca. Burwars continue to come in numbers to Bengal, and many have been arrested and convicted. These men are all sent home to be released, and in time they will probably cease to find it pay them to come here."

The Government of the North-Western Provinces and Oudh has recently addressed the Government of India regarding the desirability of bringing the Burwars under the operation of the Criminal Tribes Act, and the question is still under consideration. If the proposal is adopted, it is probable that Lower Bengal will be less troubled by their visits than it is at present.

35. A photographer is now employed for purely police work. During the past year he photographed 23 criminals. The Inspector-General is still, the Lieutenant-Governor understands, in communication with the New York photographers regarding an inexpensive method of taking likenesses, to which reference was made in the Resolution on the Report for 1881.

36. The total number of persons re-convicted during the year was 1,397; of these, 1,024 had been once previously convicted, and 257 had been twice, 80 three times, 18 four times, 9 five times, 6 six times and 2 seven times previously convicted, whilst against 1 eight previous convictions were proved. The Inspector-General refers to a case in which the accused escaped recognition when on his trial, though after his conviction it was ascertained that he was an habitual offender. The Magistrate refused to refer the case, because, in a similar one, the High Court had declined to revise and enhance the sentence. Mr. Lyall remarks: "It is obviously opposed to the interests of the public that a man should escape a heavy sentence which he has legally incurred by concealing his identity; and as cases of this kind ought to be committed, the High Court may possibly be induced to take this view." The Inspector-General should submit a full report on the case, and the records will then be called for, and the subject taken up with a view to a reference being made to the High Court should the case seem to call for it.

37. The conduct of the police during the year appears to have been on the whole fair, though the remarks made by some of the Commissioners show that there is still considerable room for improvement. The general results, however, establish the fact that, though in repressing crime the police have been fairly successful, detective capacity is not conspicuous in the force. The Lieutenant-Governor would be glad if the Inspector-General could suggest any particular measures for the organization of a special detective force. It is probable that for it a better stamp of men than our ordinary police would be required. Efforts are being made in Lohardugga to get the sons of the local zemindars to take service in the police, and if the efforts are successful, it may indicate a direction in which a solution for the difficulty may be found.

38. The Lieutenant-Governor regrets to have to record the death during the past year of two valuable police officers—Mr. Parry Davis and Mr. Platts. Another experienced officer, Colonel W. R. Gordon, Deputy Inspector-General, retired after a long career in the police. Under the orders of the Government of

India, the appointment of Personal Assistant to the Inspector-General having been made one tenable for five years only, Major Wilkinson reverted to regular duty after having with great credit filled the post for nine years. Mr. Monro held the office of Inspector-General up to the 13th June, and Mr. Lyall succeeded him and held the appointment during the remainder of the year. To both these officers the Lieutenant-Governor's special acknowledgments are due for their able administration of a very responsible and difficult department. Mr. Rivers Thompson notices with satisfaction the names of the District and Assistant Superintendents specially mentioned in paragraph 57 of the Report. A copy of the remarks made concerning them will be forwarded to the Appointment Department for record.

ORDER—Ordered that a copy of the above Resolution be forwarded to the Inspector General of Police and the Commissioner of Police, Calcutta.

Ordered also that a copy of the Resolution be forwarded to all Commissioners of Divisions for information.

Ordered also that a copy of the Resolution, and extract paragraphs 56 and 57 from the Report, be forwarded to the Appointment Department of this Office for information.

Ordered also that the Resolution be published in the *Calcutta Gazette*.

By order of the Lieutenant-Governor of Bengal,

F. B. PEACOCK,

Secretary to the Government of Bengal.

RESOLUTION ON THE REPORT ON THE CALCUTTA AND EASTERN CANALS AND NUDDEA RIVERS FOR THE YEAR 1882-83.

No. 1932 I.A.

PUBLIC WORKS DEPARTMENT—IRRIGATION ACCOUNTS..

Calcutta, the 22nd October 1883.

RESOLUTION.

READ—

The report on the administration of the Calcutta and Eastern Canals and Nuddea Rivers for the year 1882-83, submitted with letter No. 584B., dated the 23rd July last, from the Secretary to the Board of Revenue, Lower Provinces.

Comparative statement of revenue and charges of the Calcutta Canals and Nuddea Rivers for the year 1882-83, submitted with the Examiner of Public Works Accounts' memorandum No. 5218 of the 21st June 1883.

Read again—

The reports of the administration of the Calcutta and Eastern Canals and Nuddea Rivers for the years 1872-73 to 1881-82.

Resolution in the Revenue Department of this Government, dated 15th October 1872, on the report on the administration of the Calcutta and Eastern Canals and Nuddea Rivers for the year 1871-72.

RESOLUTION.—The last published Resolution on the administration of these canals and rivers was issued in the Revenue Department, under date the 15th October 1872. It was therein stated that in future the review of the annual report should lie in the Public Works Department. The results of the working of the canals for the 10 years preceding 1882-83 not having been previously publicly noticed, they will be briefly referred to in the present Resolution.

CALCUTTA AND EASTERN CANALS.

2. The following table exhibits the receipts and charges since the year 1872-73:—

YEAR.	Receipts.	Total expenditure, including extensions and improvements.	Net revenue after deducting expenditure, extensions and improvements being included therein.	Expenditure on extensions and improvements only.	Expenditure for year, excluding extensions and improvements.	Net revenue for year.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1872-73	4,01,770	2,63,136	1,38,634	1,06,208	1,56,928	2,44,842
1873-74	4,12,375	2,12,079	2,00,296	58,995	1,51,084	2,59,291
1874-75	3,57,209	1,85,219	1,72,050	34,013	1,51,086	2,06,063
1875-76	4,46,343	4,87,477	—45,134	3,31,407	1,56,170	2,89,273
1876-77	4,44,044	2,89,262	1,54,782	1,18,002	1,75,260	2,67,784
1877-78	4,41,298	1,98,742	2,42,466	14,143	1,84,599	2,55,609
1878-79	4,01,535	3,08,391	93,144	1,38,127	1,70,264	2,31,271
1879-80	3,44,565	4,42,958	—98,393	2,78,707	1,64,251	1,80,514
1880-81	4,14,145	8,30,696	—4,15,951	6,86,950	1,43,116	2,71,029
1881-82	4,82,407	10,54,301	—5,71,834	8,92,053	1,62,248	3,20,219
1882-83	5,64,194	10,33,633	—4,69,438	8,49,465	1,84,167	3,80,027
Total	47,08,015	53,05,293	—5,96,378	35,03,100	18,02,193	29,06,722

The smaller revenue for 1874-75 is stated in the report for that year to have been due to dulness of trade and to famine operations, which rendered the price of rice in Calcutta cheaper than in the mofussil: in the year 1879-80 there was a falling off in the traffic in rice, jute, and firewood.

3. The entrance to the canal at Chitpore was closed during the whole of the year 1881-82, and for 10½ months, or up to the middle of February, of 1882-83, during the construction of the new lock at that place, so that all traffic to the river Hooghly passed through Tolly's Nullah, which was much silted: notwithstanding these disadvantages, the revenue for these two years showed an increase of Rs. 68,322 and of Rs. 81,727 respectively over that immediately preceding.

4. The following table shows some particulars of the traffic during the last two years:—

CANALS.	1881-82.					1882-83.				
	Number of boats.	APPROXIMATE		TONNAGE OF BOATS.		Tollage.	Number of boats.	APPROXIMATE		Tollage.
		Weight of cargo.	Value of cargo.	Maunds.	Tons.			Weight of cargo.	Value of cargo.	
		Mds.	Rs.			Rs.		Mds.	Rs.	
I.—Circular Canal at Bamunghatta.	80,766	1,10,85,288	2,20,29,740	2,42,94,275	8,68,247	2,07,581	83,838	1,51,46,745	2,96,95,030	3,07,48,675
II.—Circular Canal at Rajah's khali.	6,437	11,072	2,837	1,55,125	5,581	1,661	Nil	Nil	Nil	Nil
III.—Circular Canal at Chitpore.	Nil	Nil	Nil	Nil	Nil	Nil	3,470	8,85,435	6,72,780	20,58,625
IV.—Tolly's nullah at Samcockpottah.	46,768	79,10,032	1,74,10,558	1,62,76,575	6,85,213	1,39,096	40,473	71,67,800	1,01,27,987	1,58,33,645
V.—Tolly's nullah at Russa toll station.	42,479	6,22,199	8,79,063	8,22,525	29,157	8,537	44,091	9,48,668	21,24,824	11,68,600
VI.—Tolly's nullah at Kidderpore.	40,215	67,08,746	90,80,191	1,62,71,692	5,89,583	96,839	38,232	65,00,293	1,40,13,064	2,63,31,524
Total	2,16,665	2,62,47,237	4,94,02,389	5,78,30,192	20,77,781	4,53,714	2,10,104	3,06,48,941	5,66,33,685	7,61,31,069
										26,91,069
										5,33,722

It will be noticed that, compared with the year 1881-82, there was during 1882-83 a diminution in the number of boats which entered the canals: the tonnage was, however, 22·8 per cent. in excess, and, as already stated, the tolls showed an increase of Rs. 81,727. The Board of Revenue observe that "this satisfactory financial result, in the face of a reduction in the number of boats, is attributed to the exercise of more than usually careful supervision in the measurement of boats during the year, while it is also due, in some measure, to the levy of tolls since the 19th February last according to the system of new rates sanctioned by Government in the correspondence marginally cited."*

* Board's letter to Government, No. 641B, dated 21st July 1882.

Government order No. 19771, dated 17th October 1882.

Government in the correspondence marginally cited."*

The revised scale of tolls is substantially in accordance with that hitherto in force, a charge having, however, been sanctioned for boats taking advantage of the canals for their return journey, and a minimum rate of 4 annas per boat introduced. The tollage is less than one per cent. on the value of the goods carried.

5. The expenditure on the canals for the period embraced in this review includes Rs. 35,03,100 expended on new or original works, the chief of which are enumerated below :—

	Cost. Rs.	When completed.
Deepening the Bhangore khall	70,814	February 1874.
Constructing a new girder bridge at Hastings	1,46,264	March 1876.
Deepening the new canal and constructing 4-inch syphon culverts	1,11,728	December 1881.
New lock at Dhappa	4,54,170	August 1881.
Inlet at Chitpore	44,955	January 1883.
New lock at Chitpore	8,28,222	February 1883.
New bridges at Dum-Dum, Ooltadanga, Manicktolla and Narkuldanga	1,36,532	July to Sept. 1882.
Storm-water intercepting sewer, half cost paid by Government	4,67,669	In progress.

6. Orders have lately been issued for the preparation of a capital and revenue account of the canals, but as they were commenced in 1804, and expenditure on extensions and improvements, the accounts of which are not now in existence, has been constantly incurred since that date, there is great difficulty in obtaining even a satisfactory approximation to their capital cost.

So far as can at present be ascertained, the total cost of the canals to Government has been Rs. 68,36,323, inclusive of indirect charges, and the net revenue from 1804-5 to the end of 1882-83 Rs. 1,18,75,274, whilst interest charges at $4\frac{1}{2}$ per cent. up to the end of 1880-81, and at 4 per cent. subsequently, would amount to Rs. 67,40,526. The canals have therefore yielded a clear profit of Rs. 51,34,748.

7. The importance of the canals in regard to the trade of Calcutta is shown by the following table, contrasting the imports into Calcutta by railway and by these canals :—

YEAR.	East Indian Rail-way.	Eastern Bengal Rail-way.	Calcutta and South-Eastern State Railway.	Total railways.		Total Calcutta Canals.
				Mds.	Mds.	
1879-80	...	2,63,67,199	63,48,996	7,57,693	3,34,73,888	1,04,03,851
1880-81	...	2,64,63,544	71,50,998	8,60,430	3,44,74,972	1,34,72,791
1881-82	...	3,20,98,798	91,45,740	9,47,307	4,21,91,845	1,58,51,399
1882-83	...	3,48,22,369	1,00,10,958	11,15,087	4,59,48,414	1,81,77,852
Total	...	11,97,51,910	3,26,56,692	36,80,517	15,60,89,119	5,79,05,893

8. Proposals to convert the canal beyond Dhappa, which is at present tidal, into a still-water reach as far as Kooltee on the 27th mile, and to connect Tolly's Nullah and the Circular Canals by a new canal skirting Calcutta, are now being considered. The large surplus revenue which has hitherto accrued, and the continued increase in traffic, are such as to justify a considerable expenditure on improving the facilities for navigation at present afforded.

NUDDEA RIVERS.

9. The receipts and expenditure on these rivers, from the year 1872-73 to 1882-83, are shown in the statement below :—

YEAR.	Receipts.	Expenditure.	Net revenue.
1872-73	2,9,376	71,258	1,48,118
1873-74	1,85,674	1,16,793	68,881
1874-75	1,73,032	68,195	1,04,837
1875-76	2,18,624	78,367	1,40,257
1876-77	2,54,990	75,782	1,79,208
1877-78	3,24,940	95,224	2,29,716
1878-79	2,74,029	93,844	1,80,185
1879-80	2,30,627	87,574	1,43,053
1880-81	2,32,633	1,21,846	1,10,787
1881-82	2,11,220	2,70,720	-59,500
1882-83	1,82,967	1,18,231	64,736
Total	25,08,112	11,97,834	13,10,278

NOTE.—The expenditure recorded here does not include fluctuations in suspense balances.

The decrease in the collections is stated to be due to the comparatively unfavourable state of the rivers during the year, the Jellinghee alone having remained open throughout. The Matabangha was closed for vessels of more than 100 maunds burden from the middle of November, and the Bhagiruthee from early in October.

10. The thanks of the Lieutenant-Governor are due to the Commissioner of the Presidency Division and to the Member in charge for their reports. With the view of rendering these annual *resumés* still more valuable, the Superintending Engineer will be directed to submit to the Commissioner by the 1st of June a succinct account of the works undertaken by the Public Works Department during the year, explaining any fluctuations in the expenditure. It is noticed that Mr. Monro, in paragraph 13 of his report, adverts to the want of

* Paragraph 15 of the Board's report for 1881-82. information on this subject, and in previous reports* the matter has been referred to by the Board of Revenue. The Board's favourable mention of Mr. W. R. Cooksey, Collector and Supervisor of the Calcutta Canals, is noted.

ORDER—Ordered that a copy of the above Resolution be forwarded to the Board of Revenue, Lower Provinces; the Commissioner of the Presidency Division; and the Superintending Engineer, South-Western Circle, for information and guidance; and to the Examiner, Public Works Accounts, and the Revenue and Financial Departments of this Government for information.

By order of the Lieutenant-Governor of Bengal,

H. C. LEVINGE,

Secretary to the Govt. of Bengal,

P. W. Dept.

Rainfall, Weather, and State and Prospects of the Crops.

Statement showing Rainfall, Weather, and State and Prospects of the Crops in the different Districts of Bengal, as reported to Government during the week ending the 20th October 1883.

No.	District, and date of return.	Rainfall at Sudder Station in inches.	Character of the weather, state and prospects of the crops, and state of health at date.
BENGAL.			
<i>Western Districts.</i>			
1	Burdwan, Oct. 20 '83	0.52	Weather—generally dry, but some rain fell in different parts of the district. Prospects of <i>amun</i> crop unfavourable. Average outturn will not exceed six annas, and may possibly be only four. <i>Aus</i> crop has been fair. Health generally tolerable, but some cases of cholera have been reported.
	Cutwa	0.17	
	Raneeunge	0.02	
	Culna	1.41	
2	Bankoora, " 20	0.01	Cold weather appears to have set in, but days continue to be hot and bright. The early cessation of the rains has caused great damage to the crops. At the most favourable estimate the Collector does not think that more than 8 or 9 annas crop all round will be reaped. Prices show a tendency to rise. Bankoora headquarters thana is at present worst off. Khatra and parts of Chatna have had timely plentiful rain. The next fortnight will probably settle the fate of the late rice, unless there be at least one or two inches of rain. Public health good.
	Bishenpore	0.14	
	Maliara	1.81	
	Khatra	0.90	
3	Beerboom, " 20 "	0.01	Weather—fine. Mornings cool. <i>Aus</i> and <i>amun</i> crops suffering for want of rain. Irrigation going on wherever practicable. Deficiency of harvest most probable. Prices are beginning to rise. General health satisfactory.
	Rampore Haut	0.77	
4	Midnapore " 20 "	0.45	Weather—cool in the morning and evening. Prospects of crops not favourable, except in the Contai sub-division. Rain is much wanted. Public health fair.
	Contai	2.84	
	Tumlook	1.40	
	Ghatal	0.44	
5	Hooghly, " 20 "	2.74	Weather—hot for the season, with bright sun and only occasional clouds. State of <i>amun</i> rice is bad all over the district. The crops on the higher lands are drying up. There was good rain in some parts of the Sudder sub-division in the course of the week. The condition of the crop in the Serampore sub-division is bad; not more than half an average <i>amun</i> crop can be expected at the most. Sugarcane fair. Public health good.
	Howrah, " 22 "	Nil	Weather—mornings cool; days hot; occasionally cloudy, but no rain. Rain much wanted. <i>Amun</i> rice and sugarcane suffering.
	Oolooberiah	0.20	
<i>Central Districts.</i>			
6	24. Pergunnahs. Oct. 22 '83	0.63	Weather—hot and dry. Rain badly wanted. Prospects of late paddy not good. On high lands it has suffered much, and its growth on low lands has been injured by the drought. Public health generally good. Cases of cholera reported from Baraset.
7	Nuddea, " 20 "	2.26	Weather—cool and clear. Rain much wanted for <i>amun</i> crop and for sowing of winter crops. Late rain was beneficial, but not enough for <i>amun</i> on higher lands. Fever unchanged.
	Kooshtea	0.78	
	Meherpore	0.16	
	Chooadanga	0.46	
	Ranaghat	0.62	
8	Khoolua, " 20 "	0.06	Weather—bright and hot. In Bagirhat prospects of <i>amun</i> rice are said to be good; in the Sudder sub-division late rice is not reported as injured; but in Satkhira, where there is more early rice, crops have suffered. Public health good.
9	Jessore, " 20 "	1.27	Weather—hot for the season. <i>Amun</i> crop has suffered from drought. The injury to this crop on high land is estimated at from 4 to 12 annas. The damage caused to it on low land is not so great, and is estimated at from 4 to 8 annas. There has not been any heavy rain during the week under report. The want of rain has retarded the sowing of the winter crops. Fever is reported from Jhenida, Bongong, and Narail.
	Jhenida	0.18	
	Magura	0.82	
	Narail	Nil	
	Bongong	0.25	
10	Morshedabad. " 20 "	Nil	Weather—sultry days, with cold dewy nights. <i>Amun</i> rice continues to deteriorate in the absence of rainfall. Efforts are being made to induce recourse to irrigation which, it is hoped, will save a portion of this important crop. The drought is also seriously impeding the cold-weather sowings. Cholera is reported from Khargram; otherwise public health good.
11	Dinagepore Oct. 19 '83	Nil	The cold weather has almost set in. Rain is very much wanted for <i>amun</i> . Rice selling at from 17 to 20 seers per rupee.
12	Rajshahye, " 20 "	1.10	Weather—gradually becoming cooler; occasional clouds. Outturn of <i>aus</i> has varied considerably. In the south a very poor crop. From 11 thanas and outposts it is reported to be 8 annas and upwards. Much of the <i>ropa</i> paddy has now dried up. The rest is being kept alive by tank irrigation. The paddy in low lands holds out, but will be a short crop. Price of rice in three northern thanas has risen to 14 seers. <i>Rubbee</i> sowings are being delayed for want of rain.
	Natore	0.54	
	Nowgong	Nil	
13	Rungpore " 20 "	Nil	Weather—dry and occasionally cloudy. Rain is much wanted for winter paddy; plants are suffering from drought. Fever prevalent.
	Gaibanda	Nil	
	Kurigram	Nil	
	Nilphamari	Nil	
14	Bogra " 20 "	0.31	A shower of rain on the evening of the 16th, since then the weather has become tolerably cool. State and prospects of <i>amun</i> crop are getting worse from day to-day. It is generally withering for want of moisture. Public health now fair.
15	Pabna, " 20 "	1.14	Several showers. Weather cooler. Prospects of <i>amun</i> rice bad. Ground being prepared for winter crops.
16	Darjeeling, " 20 "	Nil	Fresh clouds have again gathered. Crops in hills doing well. In the Terai late rice on high lands wants rain badly. Outturn of jute below average. Cold-weather crops being sown.
17	J. I. P. G. O. R. E. " 20 "	Nil	Weather—somewhat hot in the day, but generally seasonable. Prospects of crops promising. Ground in places is being prepared for cold-weather crops. Public health good.
	Cooch Behar up to 17th Oct.	0.10	Weather—getting a little cool. Prospects of late rice continue favourable. Fields being prepared for cold-weather crops. The planting out of tobacco seedlings has just commenced. Public health good.
	Dinhatta up to 14th Oct.	Nil	
	Mathabhaunga up to 13th Oct.	3.50	
	Meckligrunge up to 13th Oct.	Nil	

No.	District, and date of return.	Rainfall at Sudder Station in inches.	Character of the weather, state and prospects of the crops, and state of health at date.
BENGAL.—concl'd.			
<i>Eastern Districts</i>			
DACC DIVE.	18 Dacca, Oct. 20 '83	0.08	Weather—hot. <i>Ashini</i> paddy is being harvested. Cutting of jute is nearly completed. <i>Amun</i> crop thriving. <i>Mung</i> and <i>maskali</i> are being sown. Prospects of other crops good.
	Manickgunge	1.54	
	Munshigunge	6.01	
	Naraingunge	1.6	
	19 Furreedpore, " 20	Nil	Weather—hot and dry in the Sudder sub-division; stormy in the south; and hot, with some rain, in the north. More rain is much needed, and urgently in the Sudder sub-division. State and prospects of <i>amun</i> generally not favourable. In many places the crop is withering on high lands. But the rainfall at Madapore has done much good, and prospects are improved in the north. The harvest of unplanted <i>amun</i> has begun in a few places. Sugarcane and <i>til</i> are doing well, and some land is being prepared for cold-weather sowings. Fever is very prevalent.
CHITTAGONG DIVN.	20 Backergunge, " 18 "	2.07	Weather—seasonable. High wind with showers on the 11th. The rain has done much good to the <i>amun</i> crop. General health good.
	21 Mymensingh, " 19 "	0.84	Weather—hot sun, and mostly clear sky with a few inextensive thunder showers. Want of rain has injured about 6 annas of the <i>amun</i> crop up to date, and more will be destroyed if there be continued drought. The rivers have fallen very rapidly some feet in a short time. Fever prevalent.
	22 Chittagong, Oct. 23 '83	Nil	Weather—fair. Prospects of crops good. Prices somewhat low. General health favourable. Cattle-disease has again appeared.
	23 Noakholly, " 18 "	3.12	Weather—rainy during the first three days of the week; clear and sultry since then. Young <i>amun</i> plants are promising well.
	24 Tipperah, " 18 "	2.32	Weather—very sultry. Crops very good. Health good.
PATNA DIVN.	Brahmunberia	2.59	
	Chandpore	1.55	
	25 Chittagong Hill Tracts, " 16 "	1.25	Weather—seasonable. Slight showers in first part of week. Foggy mornings. Cotton being gathered; crop very short. Plough-paddy and sugarcane doing well. Land being prepared for mustard.
	Hill Tipperah, " 17 "	2.81	Weather—cloudy and hot. Prospects of crops continue favourable. Public health good.
	BEHAR.		
PATNA DIVN.	26 Patna, Oct. 20 '83	Nil	Weather—cloudy. Paddy crop suffering everywhere for want of sufficient rain. Fever still prevailing in the interior of the Behar sub-division.
	Behar	Nil	
	27 Gya, " 20 "	Nil	Clouds have been gathering for some days. There is a promise of rain. It is now falling. Rice prospects very bad. A great part of the crop is already lost. <i>Rubbee</i> prospects are also bad unless rain falls soon. Prices rising. Health fair, but cholera is still reported.
	28 Shahabad, " 20 "	Nil	Weather—hot during the day and cool in the mornings and evenings. Much of the winter rice is dead for want of rain to ripen it. The canal officers have exerted themselves to give as much water as possible, but the supply is insufficient. Light rain is falling to-day (20th). It is much needed for <i>rubbee</i> sowings.
	Buxar	Nil	
BHAGULPORE DIVN.	Sassaram	Nil	
	29 Durbhunga, " 20 '83	Nil	Weather—seasonable, but somewhat closer than it ought to be. Prospects very bad indeed owing to want of rain. Even if it falls now there cannot be more than an eight or ten-anna crop throughout the greater portion of the district. Prices are rising.
	Mozufferpore, " 20 "	Nil	<i>Rubbee</i> sowings are in active progress, and in some parts the young crop is well above ground. The long drought has materially injured the rice, but to-day (20th) a light drizzling rain has commenced to fall, with heavily overcast sky. Should the rain continue, a considerable portion of the rice crop will be saved.
	Hajeeapore	Nil	
	Seetamarhi	Nil	
BHAGULPORE DIVN.	30 Saran, " 20 "	Nil	Weather—dry; days hot, nights cool; clouds hanging about, but no rain until to-day (20th)—drizzling rain since the morning. Rain most urgently wanted. Paddy crop suffering, except where irrigation is practicable. <i>Rubbee</i> sowings delayed for want of rain. If heavy rain does not fall within the next 10 days paddy crop will be a failure, and prospects of <i>rubbee</i> crops will be bad. Cases of fever reported, public health otherwise good. Prices still easy.
	Sewan	Nil	
	Gopalgunge	Nil	
	31 Chumparun, " 20 "	Nil	Weather—cool and cloudy. The continued drought causes grave anxiety. It is always very cloudy, but no rain. If rain does not fall within a week, the rice crop will entirely fail where irrigation is not possible. Some cases of fever reported.
	32 Monghyr, Oct. 20 '83	Nil	Weather—hot and fine in early part of week; latterly cool and cloudy. Rain is much wanted for the rice crop and for <i>rubbee</i> sowings. Prices rising. Public health good.
BHAGULPORE DIVN.	Begusera	Nil	
	Jamui	Nil	
	33 Bhagulpore, " 20 "	Nil	Weather—still hot in day, but getting cooler every night. <i>Aghani</i> paddy will yield from 4 to 12 annas; generally an 8-anna yield may be expected. Prospects of <i>rubbee</i> crops most unsatisfactory. There is no moisture in the ground for sowings, and there will be less water than usual for irrigation unless rain falls, of which there is to-day (20th) some promise.
	Purneh	Nil	
	Kissengunge	Nil	
BHAGULPORE DIVN.	Arrareah	Nil	Weather—hot and dry. Reports from Kissengunge are still good. In Arrareah the rice on high lands has suffered much, and in the Sudder sub-division still more, from want of rain, of which there seems now to be no hope. The full extent of the damage done cannot yet be estimated, but it is feared that the winter rice crop will not average more than 8 to 10 annas over the whole district. Fever prevails everywhere, and cholera is reported from Caragola.
	Maldah, " 20 "	0.08	Weather—mornings foggy, sky occasionally cloudy, prevailing wind from north and north-west. Prospects are bad owing to want of rain. Winter rice plants are withering in the fields. Prices of food-grains are rising. General health is good.
	Sonthal Pergna, " 20 "	Nil	Weather—days hot, occasionally cloudy; nights cool; clear with some dew. High land paddy has suffered much. The land capable of being irrigated is everywhere being watered. In places rain has fallen and enabled the cold-weather crop lands to be ploughed and sown; elsewhere these lands cannot be ploughed, and if rain comes, sowings must be later than usual. Prices are rising very significantly, and stocks of grain are being husbanded. Indian-corn is being bought up in the east of the district by ryots who have come from the south-east of Bhagulpore.
	Deoghur	0.17	
	Godda	0.17	
	Rajmehal	Nil	
	Jaintara	Nil	
	Pakour	Nil	

No.	District, and date of return.	Rainfall at Sudder Station in inches.	Character of the weather, state and prospects of the crops, and state of health at date.
ORISSA.			
ORISSA DIVN.	38 Cuttack, Oct. 19 '83	0·41	Weather—hot. <i>Beali</i> being harvested and gathered. <i>Sarad</i> crop on high lands reported to be parched up at Kanika for want of rain. In other places rain is also urgently wanted. Public health generally good. Cases of cholera still occurring in some places in the Kendrapur sub-division.
	39 Pooree, Khoorda " 18 "	3·21 1·14	Weather—hot. <i>Sarad</i> much benefited by recent rain. <i>Beali</i> being harvested. Winter crops doing well. Public health fair. Common rice selling at from 20 to 30 seers per rupee.
	40 Balasore, " 19 "	1·08	Weather—clear and warm. The rainfall of the week was heaviest in the north of the district, and fell off gradually towards its southern extremity, where it was only half inch. But this rain has done considerable good, having been supplemented with local showers in various parts. Of course more rain is wanted very much, but after the late fall at least a 10-anna crop for the district is expected. Fever, as usual at this season, prevails at places; otherwise public health good.
CHOTA NAGPORE. <i>South-West Frontier Agency.</i>			
41	Hazaribagh. Oct. 19 '83	Nil	Weather—warm and bright. The protracted drought causes great anxiety for the standing paddy crop. Prices rising gradually. General health good.
42	Lohardugga. " 20 Daltongunge	Nil Nil	Weather—cold in morning and evening; warm in day. Rice crop seriously affected by continued drought, especially towards Lohardugga. <i>Rubbee</i> sowings in Palamow at a stand-still. Price of coarse rice has risen two seers.
43	Singbloom, " 19 "	0·62	Weather—days hot, nights cool. Prospects of crops generally good, but more rain is badly wanted. Cattle-disease reported from some villages. Public health good.
44	Manbloom, " 20 "	0·87	Weather—clear and unseasonably warm. Low land rice doing fairly well; some loss of upland crop, as yet uncertain how much. Public health good on the whole.

Published for general information.

CALCUTTA, STATISTICAL DEPT.,

The 23rd October 1883.

COLMAN MACAULAY,

Secy. to the Govt. of Bengal.

PRICES-CURRENT OF FOOD-GRAINS, FIREWOOD, AND SALT IN THE DISTRICTS
OF BENGAL FOR THE FORTNIGHT ENDING 15TH OCTOBER 1863.

PRICES-CURRENT of Food-grains, Firewood, and Salt in the

Number.	DISTRICTS.	RETAIL SALE:- QUANTITIES PER RUPEE BY																								
		WHEAT.				BARLEY.				RICE, BEST SORT.				RICE, COMMON.				BULRUSH MILLET-CUMBOO, BAJEA.				GREAT MILLET-CHOLUM, JOWAR.				
		Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Present return.	Next preceding return.	Corresponding return of last year.		
BENGAL.																										
<i>Western Districts.</i>																										
1	Burdwan	...	13 8	13 4	13 4	25 0	25 0	40 0	15 0	17 8	24 0	20 0	26 0	26 4
2	Bankura	...	14 0	13 0	13 8	12 0	14 0	15 0	14 0	19 0	21 0	16 12	25 0	27 0
3	Beerbhum	...	15 8	15 12	13 4	18 0	16 8	17 0	22 8	22 8	21 0
4	Midnapore	...	13 0	14 0	13 0	17 0	17 0	...	16 0	17 0	21 0	22 0	24 0	25 0	...	...	...	...	...	...	...	...	...	...	...
5	Hooghly	...	13 0	13 0	16 0	...	...	...	9 0	9 0	10 0	18 0	18 0	20 0	...	...	...	...	...	...	...	...	...	...	...
	Howrah	...	13 4	13 0	13 0	...	...	...	13 8	14 0	14 8	18 8	19 0	17 8	...	...	...	...	...	...	...	...	...	...	...
<i>Central Districts.</i>																										
6	Calcutta	...	16 0	15 5	13 5	20 10	20 0	24 8	11 8	11 8	10 0	16 0	16 0	20 0	23 0	21 5	...	21 5	20 10	...	...	...	...	...	...
6	24-Pergunnah	...	13 5	12 12	13 5	17 8	18 0	20 0	8 0	8 0	10 8	13 5	13 5	17 0	13 5	...	...	18 0	16 0	...	...	...	...	...	...
7	Nuddea	...	14 8	14 8	13 5	24 10	24 10	24 10	15 4	15 4	15 4	18 4½	18 4½	20 0	...	...	...	...	...	...	...	...	...	...	...
8	Khoolna	...	...	...	...	...	...	...	16 0	16 0	16 0	22 0	22 0	22 0	...	...	...	...	...	...	...	...	...	...
9	Jessore	...	10 0	11 8	10 0	...	...	...	16 0	16 0	16 0	20 0	21 0	21 4	...	...	...	...	...	...	...	...	...	...
10	Moorshedabad	...	16 0	16 12	16 0	...	...	...	15 0	16 0	14 6	20 0	21 8	21 4	...	...	...	...	...	...	...	...	...	...
11	Dinapore	...	16 0	16 0	13 4	14 8	16 0	14 0	19 0	19 0	20 0	21 0	21 0	26 0	...	...	...	...	...	...	...	...	...	...
12	Rajshahye	...	16 0	16 0	13 8	29 0	29 0	32 0	13 8	15 0	16 18½	14 8	17 0	17 4	...	...	...	...	...	...	...	...	...	...
13	Rungpore	...	13 5	13 5	16 0	...	...	...	13 5	13 5	14 0	19 0	19 0	20 0	...	...	...	...	...	...	...	...	...	...
14	Bogra	...	18 0	18 0	17 8	...	...	...	9 12	12 0	18 0	12 12	22 8	26 4	...	...	...	...	...	...	...	...	...	...
15	Pubna	...	18 0	18 12	17 4	...	...	...	8 4	8 4	9 4	17 4	17 4	22 8	...	...	...	...	...	...	...	...	...	...
16	Darjeeling	...	7 0	8 0	8 0	7 0	8 0	8 0	5 0	5 0	5 0	12 0	13 0	12 0	...	...	...	...	...	...	...	...	...	...
17	Julpigoree	...	10 0	10 0	10 0	20 0	20 0	20 0	13 4	12 8	14 0	18 0	18 0	20 0	...	...	...	...	...	...	...	...	...	...
<i>Eastern Districts.</i>																										
18	Dacca	...	14 4	13 8	13 12	18 0	20 0	40 0	14 8	16 0	22 10	17 0	17 12	26 8	...	...	...	...	...	...	...	...	...	...	...
19	Furreedpore	...	21 0	21 0	20 0	30 0	3 0	37 8	18 0	18 0	20 8	20 0	20 0	22 0	...	...	...	...	...	...	...	...	...	...	...
20	Backergunge	...	...	...	...	...	...	...	16 0	18 0	18 0	19 0	21 0	23 0	...	...	...	...	...	...	...	...	...	...
21	Mymensingh	...	12 0	12 0	11 8	...	...	...	13 4	13 4	26 8	16 0	18 12	27 8	...	...	...	...	...	...	...	...	...	...

A In the sub-divisions retail prices of salt are as follow:—Culna 14 seers, Cutwa and Rancegunge 13½ seers.
 B Retail prices of salt at Kaipore 11 seers, Onda 16 seers, Mejia 9 seers, Bishenpore and Kotulpore 13 seers, and Indas 14 seers.
 C In the interior retail prices of salt range from 11 to 13½ seers.
 D In the sub-divisions retail prices of salt are as follow:—Serampore 13 seers and Jehanabad 13½ seers.
 E In the sub-divisions retail prices of salt are as follow:—Barnset and Bussirhat 13 seers, Diamond Harbour 10½ seers, Barrackpore 12½ seers, and Dum-Dum 12 seers.
 F In the sub-divisions retail prices of salt are as follow:—Kooshtea and Choadanga 13 seers, Meherpore 11½ seers, and Ranaghat 11½ seers.
 G In Sathkira retail price of salt 11 seers.
 H In the sub-divisions retail prices of salt are as follow:—Jhenida, Magura and Narsil 12 seers, and Bongong 13 seers.
 I In the sub-divisions retail prices of salt are as follow:—Lalbagh 11 seers, Jungypore 12 seers, and Kaudi 11½ seers.

Districts of Bengal for the Fortnight ending 15th October 1883.

3. In Newtong retail price of salt 12 seers

K In Gaibanda and Nilphamari retail price of salt 12 seers.

L In Serajguunge retail price of salt 13 seers.

M Retail price of salt at Kurseong 8 seers and Silligoree 10 seers.

N Retail price of salt at Fallacoita in Alipore sub-division 10 seers.

In the sub-divisions retail prices of salt are as follow:— Manickunge 12 seers, Moonshegunge 10 seers 10 $\frac{1}{2}$ chittacks, and Narangunge 121 seers.

P In the sub-divisions retail prices of salt are as follow :- Goalundo 11 seers, Madaripore and Bhangia 12 seers, and Gopalpurge 13 seers.

In the sub-divisions retail prices of salt are as follow :- Patunkhali 9½ seers, Pergorpoor 11 seers, and Bholu 9 seers.

In the sub-divisions retail prices of salt are as follow:—Kishoreganj 10½ seers, Attea and Jamalpore 12 seers, and Netrokona 12½ seers.

PRICES-CURRENT of Food-grains, Firewood, and Salt in the

Number.	DISTRICTS.	RETAIL SALE:—QUANTITIES PER RUPEE BY THE																	
		WHEAT.			BARLEY.			RICE, BEST SORT.			RICE, COMMON.			BULRUSH MILLET—CUMBO, BAJRA.			GREAT MILLET—CHOLUM, JOWAR.		
		Present return.	Nett preceding return.	Corresponding return of last year.	Present return.	Nett preceding return.	Corresponding return of last year.	Present return.	Nett preceding return.	Corresponding return of last year.	Present return.	Nett preceding return.	Corresponding return of last year.	Present return.	Nett preceding return.	Corresponding return of last year.	Present return.	Nett preceding return.	Corresponding return of last year.
<i>Eastern Districts.—(Concluded.)</i>																			
29	Chittagong	S	11 8	11 4	9 0	...	...	...	13 8	16 0	14 0	16 0	17 0	22 8	...	...	...	...	...
23	Noakhally	T	...	...	...	...	...	...	19 0	19 0	22 0	21 0	21 0	26 0	...	...	...	...	...
24	Tipperah	U	11 12	11 12	11 8	...	...	...	18 12	17 0	19 4	20 0	20 12	27 12	...	...	...	...	...
25	Chittagong Hill Tracts.*	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Hill Tipperah	...	10 0	10 0	10 0	...	...	...	18 0	16 0	20 0	20 0	20 0	28 0	...	...	...	...	...
<i>BEHAR.</i>																			
26	Patna	V	21 0	21 0	22 0	29 0	29 0	28 0	15 0	15 0	14 0	18 0	18 0	22 8	...	...	...	...	...
27	Gaya	W	17 0	17 8	18 0	23 0	23 0	23 8	11 0	12 0	12 8	14 8	16 8	19 0	...	...	...	...	...
28	Shahabad	X	16 0	16 8	16 8	24 0	24 0	26 0	10 0	11 0	17 0	14 0	16 0	18 0	24 0	26 0	...	24 0	23 0
29	Durbhanga	Y	18 0	17 0	18 0	22 0	24 0	30 0	12 0	14 0	13 0	14 0	16 0	16 0	...	...	...	...	...
30	Mozaffarpore	...	17 0	17 0	16 0	30 0	30 0	40 0	10 0	10 0	12 0	15 0	15 0	17 0	...	...	...	...	...
31	Sarun	Z	17 0	17 0	16 8	29 0	28 0	28 0	10 0	10 0	10 0	17 8	17 8	21 0	...	...	28 0	29 0	35 0
32	Chumparun	Z1	19 0	19 0	17 0	29 0	31 0	32 0	14 0	14 0	14 0	19 0	17 0	21 0	...	...	...	...	...
33	Monghyr	...	17 13	17 13	17 13	26 4	27 12	36 12	11 8	13 10	15 12	13 2	16 4	17 13	...	...	...	...	...
34	Bhagulpore	Z3	15 2	15 2	15 2	21 7	25 4	35 5	12 10	16 10	17 11	15 2	18 7	19 9	...	...	...	...	...
35	Purneah	Z3	18 0	19 0	14 0	...	...	...	14 0	15 0	18 0	18 0	18 0	20 0	...	...	...	...	...
36	Maldah	...	18 0	18 0	17 0	...	...	...	16 0	15 0	20 0	21 0	18 0	22 0	...	...	...	...	...
37	Sonthal Perghs.	...	14 0	13 8	13 0	...	...	...	14 0	17 8	16 0	18 0	23 0	22 0	...	...	...	...	...
<i>ORISSA.</i>																			
38	Cuttack	...	13 2	13 2	15 12	...	...	...	13 2	13 2	15 12	21 0	21 0	26 4	...	...	...	...	...
39	Pooree	...	10 8	11 13	9 0	...	...	...	15 12	21 0	19 0	19 11	23 10	25 0	...	...	...	...	...
40	Balasore	Z4	14 0	16 0	14 0	...	...	...	10 0	16 0	25 0	16 0	28 0	23 0	...	...	...	...	...
<i>CHOTA NAGPORE.</i>																			
<i>South-Western Frontier Agency.</i>																			
41	Hazaresbagh	Z5	14 0	15 0	13 0	20 0	24 0	18 0	9 8	10 0	10 0	15 0	18 0	18 0	...	...	...	...	...
42	Lohardugga	...	15 0	16 0	14 0	18 0	20 0	20 0	16 0	16 0	20 0	20 0	20 0	22 0	...	...	...	...	...
43	Singbham	...	16 0	18 0	20 0	24 0	24 0	28 0	32 0	32 0	36 0	36 0	36 0	40 0	...	...	...	...	...
44	Manbham	...	13 0	13 0	13 0	...	...	...	16 0	17 0	17 0	22 0	27 0	31 0	...	...	...	...	...

* Return not received.

S Retail price of salt at Kumeriah 10 seers, and Cox's Bazar 8 seers.

T In the interior retail prices of salt range from 5 to 12½ seers.

U In Brahmanbaria and Chandipore retail price of salt 18 seers.

V In the sub-divisions retail prices of salt are as follow:—Nowada 10 seers, Jehanabad 12 seers, and Aurangabad 11 seers.

W In the sub-divisions retail prices of salt are as follow:—Buxar 11½ seers, Sasseram 11 seers, and Bhabua 10½ seers.

X In the sub-divisions retail prices of salt are as follow:—Madhubani 12 seers and Tajpore 11½ seers.

Y In the interior retail price of salt in most places 11 seers, in some 11½ seers, and in others 12 seers.

Z In the interior retail prices of salt range from 10 to 13 seers.

I

† In the interior retail prices of common rice

Districts of Bengal for the Fortnight ending 15th October 1883.—(Concl'd.)

SEER OF 80 TOLAHs.												WHOLESALE PRICES PER MAUND OF 40 SEERS.																								
LESSER MILLET— RAGI OR MUWAA AND CHENNA.				MAIZE OR INDIAN CORN.				GRAM.				FIREWOOD.				SALT				SALT.																
Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.													
<i>Eastern Districts.—(Concluded.)</i>																																				
S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	Rs. A.	Rs. A.	Rs. A.												
...	...	...	...	...	...	...	...	12	0	13	0	16	0	40	0	40	0	80	0	9	0	10	0	13	0	4	4	...	2	14	Chittagong.	
...	...	...	...	...	...	...	...	12	0	12	0	16	0	...	...	...	...	10	0	10	0	10	0	...	3	2	3	2	Noskholly.			
...	...	...	...	...	...	...	...	18	0	18	0	18	0	...	...	...	...	12	4	12	4	12	8	3	2	3	2	Tipperah.				
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	Chittagong Hill Tracts.				
...	...	...	...	...	...	...	...	14	0	14	0	14	0	...	...	...	...	11	0	11	0	11	0	3	4	3	4	Hill Tipperah.				
<i>BEHAR.</i>																																				
...	...	...	...	32	0	32	0	40	0	28	0	28	0	28	0	130	0	130	0	9	12	9	12	10	8	3	1	6	3	1	6	Patna.	
...	...	...	...	...	...	...	...	20	0	21	0	22	8	160	0	160	0	180	0	11	0	11	0	11	8	3	5	3	5	3	4	Gaya.
...	...	28	0	...	...	33	0	25	0	25	0	28	8	120	0	120	0	100	0	12	8	12	8	12	8	3	1	3	1	3	1	Shahabad.		
27	8	30	0	40	0	25	0	35	0	40	0	18	0	22	8	22	8	160	0	180	0	160	0	10	0	10	0	11	0	3	10	3	10	Durjhanga.		
...	27	0	30	0	45	0	23	0	22	0	25	0	140	0	140	0	140	0	12	0	12	0	12	0	3	4	3	3	3	3	Muzafferpore.		
30	0	30	0	33	0	27	8	30	0	39	0	25	8	26	0	28	0	160	0	160	0	160	0	11	0	11	0	11	0	3	5	3	4	3	3	Sarai.
...	...	...	...	30	0	30	0	41	0	24	0	24	0	23	0	...	...	...	...	11	0	11	0	11	8	3	6	3	6	3	5	Champaran.
...	27	18	42	0	52	8	23	10	25	3	27	13	126	0	160	0	126	0	12	1	12	1	13	1	3	2	4	3	1	3	1	Mongayet.	
...	25	4	35	5	50	8	22	11	22	11	26	8	151	14	151	14	151	8	12	10	12	10	12	10	3	1	3	0	2	14	Bhagulpore.		
...	19	0	20	0	10	0	19	0	20	0	160	0	160	0	160	0	10	8	9	0	10	12	3	12	4	0	3	12	Purneah.		
...	...	...	...	...	...	...	...	22	0	21	0	20	0	140	0	160	0	160	0	12	0	12	0	11	0	3	4	3	2	3	8	Maldah.
...	40	0	28	0	50	0	19	0	18	0	19	0	200	0	200	0	200	0	10	8	10	0	11	4	3	8	3	12	3	4	6	Sonthal Perga.	
<i>ORISSA.</i>																																				
18	6	15	12	13	2	18	6	18	6	21	0	80	0	80	0	160	0	14	0	14	0	14	0	2	12	2	12	2	12	Cuttack.		
...	...	...	...	...	...	...	...	17	1	17	1	14	0	96	0	120	0	120	0	13	3	13	0	13	4	2	12	2	12	2	12	Pooree.
...	...	...	...	...	...	...	...	14	0	16	0	13	0	120	0	120	0	120	0	9	3	12	12	4	2	4	2	3	2	3	Balasore.	
<i>CHOTA NAGPUR. South-Western Frontier Agency.</i>																																				
32	0	30	0	42	0	30	0	27	0	36	0	18	0	23	0	18	4	240	0	240	0	240	0	10	0	10	8	11	0	3	11	3	7	3	8	Hazaresbagh.
38	0	28	0	30	0	32	0	32	0	45	0	15	0	15	0	15	0	100	0	100	0	120	0	9	0	9	0	9	0	4	0	4	0	4	2	Lonardugga.
...	...	...	...	...	...	...	...	24	0	24	0	24	0	180	0	180	0	80	0	8	0	8	0	9	0	4	7	4	7	3	12	Singbhum.
...	16	0	16	0	19	0	120	0	120	0	120	0	10	12	10	12	10	8	3	9	3	9	3	6	9	Manbhum.			

vary from 26½ to 39½ seers per rupee.

Z1 In the sub-divisions retail prices of salt are as follow:—Begusrai 11½ seers, and Jamui 11 seers.

Z2 In the sub-divisions retail prices of salt are as follow:—Banka 11 seers, Musidhupura 10½ seers, and Soopole 12 seers.

Z3 In the sub-divisions retail prices of salt are as follow:—Kissengunge 10 seers and Arrareah (at Kameegunge) 10 seers.

Z4 Retail price of salt at Bhadruck 8 seers.

Z5 Retail price of salt at Chatra 11 seers.

Published for general information.

COLMAN MACAULAY,
Secy. to the Govt. of Bengal.

WHOLESALE PRICES-CURRENT of Food-grains, Firewood, and Salt in

Number.	MARTS.	PRICES PER MAUND																			
		WHEAT.						BARLEY.						RICE, BEST SORT.				RICE, COMMON.			
		Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.		
		R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.		
1	Calcutta	2 8 0	2 10 0	3 0 0	1 15 0	0 2 0 0	1 10 0	3 5 0	3 8 0	4 0 0	2 8 0	2 8 0	2 0 0	1 13 0	1 14 0	—	—	—	—	—	
2	Serajunge	2 2 0	1 14 0	2 11 0	...	...	...	4 0 0	4 0 0	3 8 0	2 8 0	2 4 0	1 5 0	...	...	...	...	...	...	...
3	Dacca	2 14 0	2 14 0	2 14 0	2 4 0	0 2 0 0	0 15 0	2 10 0	2 8 0	1 11 0	2 5 0	2 4 0	1 7 7	...	...	...	...	...	...	...
4	Naraingunge	—	—	—	—	—	—	2 4 0	2 2 0	1 10 0	2 2 0	2 0 0	1 9 0	...	...	...	...	...	...	...
5	Chittagong	3 8 0	3 8 0	4 2 0	—	—	—	2 12 0	2 8 0	2 12 0	2 6 0	2 4 0	1 12 0	...	...	...	...	...	...	...
6	Patna	1 14 6	1 14 6	1 13 0	1 6 6	1 6 6	1 5 6	2 10 0	2 10 0	2 14 0	2 3 0	2 3 0	1 12 6	...	...	...	...	...	...	...
7	Balasore	2 8 0	2 8 0	2 12 0	—	—	—	3 5 6½	3 3 0	1 0 0	2 0 0	1 4 0	1 6 0	...	...	...	...	...	...	...
8	Pooree	—	—	—	—	—	—	—	—	—	2 0 0	2 3 0	1 9 0	...	...	...	...	...	...	...
9	Cuttack	3 0 0	3 0 0	2 5 0	—	—	—	3 0 0	3 0 0	2 5 0	1 11 0	1 11 0	1 8 0	...	...	...	...	...	...	...

CALCUTTA,
The 23rd October 1883.

the undermentioned *Marts* of Bengal for the Fortnight ending 15th October 1883.

OF 40 SEERS.

GREAT MILLET— CHOLUM, JOWAR.		LESSER MILLET— RAGI OR MURWA AND CHERNA.		MAIZE OR INDIAN- CORN.		GRAM.		FIREWOOD.		SALT.		MARTS.				
Present return.		Next preceding return.		Present return.		Next preceding return.		Present return.		Next preceding return.		Present return.				
R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.			
1 14	0 1	15 0	...	...	...	1 8	0 1	8 0	1 4 0	2 0 0	2 0 0	1 14 0	0 6 3 0	6 3 2 12 0 2 12 0 2 10 0	Calcutta.
...	...	...	...	...	...	...	...	...	2 7 0	2 6 0 2 8 0	0 6 0 0 6 0	0 7 0 0 6 0 0 6 0	2 14 0 2 14 0 2 12 0	2 14 0 2 14 0 2 12 0	Serajgunge.
...	...	...	...	...	...	...	...	...	2 1 0	2 2 0 1 15 0	0 7 0 0 6 0 0 6 0	3 0 0 3 0 0 2 14 0	3 0 0 3 0 0 2 14 0	3 0 0 3 0 0 2 14 0	Dacca.
...	...	...	...	...	...	...	...	...	2 0 0	2 0 0 2 4 0	0 7 0 0 7 0 0 7 0	2 14 0 2 14 0 2 14 0	2 14 0 2 14 0 2 14 0	2 14 0 2 14 0 2 14 0	Narsingunge.
...	3 0 0	3 0 0 2 8 0	4 4 0 4 0 0 2 14 0	4 4 0 4 0 0 2 14 0	Chittagong.
...	...	...	...	...	...	1 4	0 1	4 0	0 15 0	1 7 0	1 7 0 1 5 6 0 5 0 0 5 0 0 5 0	3 1 6 3 1 6 3 0 0	3 1 6 3 1 6 3 0 0	3 1 6 3 1 6 3 0 0	Patna.
...	...	...	...	...	...	...	...	...	2 8 0	2 8 0 3 2 0	0 4 0 0 4 0 0 5 0	4 2 0 4 2 0 3 2 0	4 2 0 4 2 0 3 2 0	4 2 0 4 2 0 3 2 0	Balasore.
...	2 12 0 2 12 0 2 12 0	2 12 0 2 12 0 2 12 0	Pooree.
...	...	2 0 0	2 5 0	3 0 0	...	...	...	2 0 0	2 0 0 1 11 0	0 8 0 0 8 0 0 4 0	2 12 0 2 12 0 2 12 0	2 12 0 2 12 0 2 12 0	2 12 0 2 12 0 2 12 0	2 12 0 2 12 0 2 12 0	Cuttack.

Published for general information.

COLMAN MACAULAY,
Secy. to the Govt. of Bengal.

Meteorological Report of the Province

NAGA NAG- PORE	South Behar.	North Bihar.	East Bengal.	South-West Bengal.	Orissa.	Metorological Division.	STATION OBSERVATIONS.																	
							DISTRICT.	Representative stations.	AIR PRESSURE.				TEMPERATURE.				HUMIDITY.		CLOUD.					
									Highest, 10 A.M., barometer reading of month.	Lowest, 10 A.M., barometer reading of month.	Mean, 10 A.M., for month.	Mean reduced to sea-level.	Highest of month.	Lowest of month.	Mean daily maximum temperature.	Mean daily minimum temperature.	Mean daily tem- perature.	Variation from normal mean.	Mean, 10 A.M., humidity.	Variation from normal mean.	Mean cloud amount, 10 A.M.	Variation from normal mean,		
							Pooree	Gopalpore	29°840	29°526	29°938	29°981	—	88°6	78°8	82°1	78°1	80°1	—	79	—	6°9	—	7°
							False Point	...	29°875	29°470	29°694	29°715	—0°34	91°0	75°1	84°2	75°3	79°7	-0°9	78	-6	7°4	+1°2	0°
							Cuttack	Cuttack	29°820	29°419	29°663	29°735	-0°25	94°4	75°8	89°1	78°2	83°7	-0°2	77	-5	6°9	+0°9	10°
							Balasore	Balasore	29°841	29°432	29°676	29°735	—	92°0	72°0	88°3	78°2	83°2	—	81	—	7°1	—	3°
				South-West and South 24-Pergun- nahs.	Midnapore and 24-Pergun- nahs.		Saugor Island	...	29°905	29°517	29°720	29°746	-0°29	91°2	76°0	88°5	79°2	83°7	0	85	-1	7°7	+1°0	11°
				Midnapore	Midnapore		Midnapore	...	29°807	29°405	29°611	29°745	—	90°5	74°8	84°5	74°4	79°5	—	78	—	6°5	—	4°
				24-Pergunnahs, Howrah, and Hooghly.	Calcutta		Calcutta	...	29°900	29°520	29°723	29°745	-0°26	90°5	75°2	87°7	78°4	83°1	0	81	-7	8°7	+1°8	7°
				Burdwan	Burdwan		Burdwan	...	29°833	29°471	29°651	29°751	-0°18	97°6	75°0	90°6	79°1	84°8	+0°6	77	-7	8°0	+1°0	1°
				West Burdwan, Bankura, and Birbhum.	Raniganj		Raniganj	...	29°503	29°209	29°360	—	—	91°5	74°2	90°0	77°1	83°6	—	77	—	4°6	—	7°
				Moorshedabad	Berhampore		Berhampore	...	29°858	29°543	29°691	29°758	-0°19	93°7	74°3	90°3	78°3	84°3	-0°3	82	-3	8°2	+0°1	2°
				Nuddea	...		...														
				Jessore and Khoilna	Jessore		Jessore	...	29°903	29°567	29°732	29°765	-0°12	93°3	74°9	89°8	78°4	84°1	+0°2	82	-1	8°8	+1°6	2°
				Chittagong	Chittagong		Chittagong	...	29°855	29°549	29°731	29°817	+0°01	90°1	73°0	85°7	75°8	80°7	-1°0	84	-2	6°6	+0°2	14°
				Chittagong Hill Tracts	Demagri		Demagri	...																
				Backergunj	Barrisal		Barrisal	...	29°865	29°614	29°744	—	—	88°6	73°4	84°0	77°6	80°8	—	92	—	4°7	—	6°
				Noakholly	Noakholly		Noakholly	...	29°883	29°589	29°749	29°780	—	92°8	73°7	86°0	77°0	81°5	—	85	—	9°1	—	20°
				Furreedpore	Furreedpore		Furreedpore	...	29°839	29°513	29°720	—	—	89°5	74°9	87°4	78°6	83°0	—	82	—	5°4	—	3°
				Dacca	Dacca		Dacca	...	29°806	29°591	29°746	29°781	-0°07	90°8	75°6	88°2	78°8	83°5	+0°1	81	-5	6°7	-0°2	3°
				Commillah	Commillah		Commillah	...	29°919	29°602	29°763	29°800	—	87°6	73°8	81°5	76°6	77°6	—	85	—	6°0	—	2°
				Mymensingh	Mymensingh		Mymensingh	...	29°924	29°605	29°705	—	—	92°3	74°1	81°9	78°9	79°9	—	80	—	8°2	—	5°
				Bogra and Pubna	Serajgunj		Serajgunj	...	29°879	29°582	29°723	—	—	91°4	74°7	88°2	77°9	83°1	—	81	—	7°3	—	1°
				Rajshahye	Rampore Beau- leah.		Rampore Beau- leah.	...	29°817	29°524	29°652	29°763	—	93°6	73°6	90°5	78°0	84°2	—	78	—	5°8	—	3°
				Dinagepore	Dinagepore		Dinagepore	...	29°807	29°516	29°626	29°679	—	93°6	73°1	89°8	77°6	83°9	—	81	—	6°5	—	7°
				Rungpore	Rungpore		Rungpore	...	29°822	29°540	29°659	29°786	—	92°8	72°1	89°4	76°8	83°1	—	79	—	6°8	—	13°
				Julpigoree and Cooch Behar.	Julpigoree		Julpigoree	...	29°548	29°345	29°468	29°757	—	91°0	72°1	86°4	72°4	79°4	—	86	—	6°8	—	23°
				Darjeeling Hill Tracts	Darjeeling		Darjeeling	...	23°048	22°918	22°921	—	—	70°6	51°9	65°7	56°4	61°1	—	93	+2	8°8	+0°7	7°
				Purneah and North Bhagulpore.	Purneah		Purneah	...	29°789	29°492	29°625	29°752	-0°05	92°7	72°4	90°2	77°4	83°8	+0°2	81	-2	7°0	+1°3	3°
				Mozufferpore and Dur- bhunga.	Durbhunga		Durbhunga	...	29°738	29°403	29°583	29°753	+0°01	99°4	74°0	89°2	79°4	84°3	+0°3	87	+5	6°0	-0°1	2°
				Chumparum	Motihari		Motihari	...		—	—	—	—	95°1	74°4	86°6	77°8	82°2	—	74	—	3°4	—	1°
				Sarun	Chupra		Chupra	...	29°697	29°397	29°527	—	—	94°5	74°0	90°5	78°2	84°4	—	97	—	4°6	—	3°
				Dehree	Dehree		Dehree	...	29°560	29°233	29°384	29°737	—	90°4	74°0	80°3	77°3	81°8	—	74	—	3°2	—	5°
				Buxar	Buxar		Buxar	...	29°653	29°346	29°492	29°743	—	90°4	75°8	91°2	78°5	84°9	—	76	—	5°2	—	4°
				Gya	Gya		Gya	...	29°494	29°201	29°338	29°711	+0°46	96°7	68°3	93°0	74°0	83°8	-0°4	71	-5	8°2	-0°6	4°
				Patna	Bankipore		Bankipore	...	29°700	29°424	29°555	29°738	-0°16	96°0	76°2	91°5	79°4	85°4	-0°6	77	-1	6°5	—	4°
				South Bhagulpore and Monghyr.	Bhagulpore		Bhagulpore	...	29°707	29°400	29°599	29°724	—	93°4	75°5	91°0	78°3	84°7	—	74	—	3°0	—	1°
				Sonthal Pergunnahs	Naya Doomkn.		Naya Doomkn.	...	29°386	29°091	29°244	—	—	93°6	71°8	89°2	76°4	82°8	—	88	—	3°2	—	2°
				Hazaribagh	Hazaribagh		Hazaribagh	...	27°918	27°503	27°742	29°732	+0°17	89°5	69°7	81°5	72°9	79°0	+0°4	76	-6	8°4	+1°0	19°
				Lohardugga and Man- bhum.	Ranchee		Ranchee	...	775	453	625	735	—	88°7	62°2	84°1	70°6	77°4	—	77	—	6°3	—	7°
				Singbhum	Chaibassa		Chaibassa	...	29°123	28°721	28°948	—	—	?	?	?	?	?	—	?	?	?	?	?

Bengal for the month of September 1883.

DISTRICT OBSERVATIONS.											METEOROLOGICAL DIVISION.	
RAINFALL.										DISTRICT.		
Mean of dis- trict.	Normal mean of district.	Of month.	Variation from mean.	Number of rainy days.	Normal mean num- ber of rainy days.	Mean of dis- trict.	Normal mean of district.	Variation from mean.	Normal mean num- ber of rainy days.	Normal mean num- ber of rainy days.		
10.94	10.07	+0.87	16.5	16.5	56.88	45.37	+11.51	73.3	68.4	Gopalpore	... } Pooree	
9.51	9.33	+0.18	12.3	14.3	56.26	43.96	+12.30	68.4	61.8	False Point	... } Cuttack	
5.90	11.59	-5.69	13.0	14.2	49.10	40.84	+2.26	77.6	66.2	Cuttack	... } Balasore	
7.05	11.15	-4.10	18.0	13.3	49.36	53.10	-3.74	76.4	72.3	Balasore	... } Saugor Island	
2.94	8.28	-5.34	7.7	12.8	39.28	45.57	-6.29	57.7	64.5	South-West	Midnapore and South 24-Pergunna.	
3.69	8.56	-4.87	14.7	15.8	42.45	46.25	-3.80	80.9	81.0	Midnapore	... } 24-Pergunna, Howrah, and Hooghly.	
3.88	7.63	-3.75	10.7	13.1	46.20	41.64	+4.56	69.3	68.0	Calcutta	... } Burdwan	
5.65	8.48	-2.83	12.4	14.5	50.14	46.82	+3.32	75.4	74.0	Burdwan	... } Raniganj	
4.35	10.68	-6.33	10.7	14.5	37.96	45.72	-7.76	69.4	69.4	Burdwan	... } Berhampore	
3.26	8.46	-5.20	9.7	12.9	32.82	45.33	-12.50	62.4	67.8	Berhampore	... } Moorshedabad	
5.63	8.94	-3.81	13.3	14.4	39.28	48.98	-9.70	76.5	78.8	Nuddea	... } Jessore	
16.38	14.08	+2.30	18.5	18.3	120.68	117.50	+3.18	103.0	94.1	Jessore	... } Chittagong	
9.72	13.78	-4.06	25.0	20.4	68.01	71.92	-3.91	112.0	90.5	Chittagong	... } Demagri	
8.12	11.72	-3.60	16.5	17.4	52.81	71.46	-18.05	90.7	95.2	Chittagong Hill Tracts	... } Barrisal	
16.72	17.92	-1.20	20.5	19.4	104.49	101.05	+3.44	97.7	99.4	Backergunj	... } Noakhally	
4.71	9.39	-4.88	10.7	14.0	39.26	62.80	-13.55	73.8	79.3	Noakhally	... } Furreedpore	
2.71	10.87	-8.16	14.5	14.2	39.03	56.86	-17.83	82.6	79.6	Furreedpore	... } Dacca	
11.79	11.55	+0.24	16.7	16.6	62.25	65.30	-3.05	88.9	89.4	Dacca	... } Commillah	
4.23	13.86	-9.63	10.6	16.6	41.86	63.53	-21.68	71.7	84.4	Commillah	... } Mymensingh	
2.86	10.43	-7.57	7.5	12.8	34.33	52.46	-18.13	58.1	69.2	Mymensingh	... } Serajgunj	
2.65	11.90	-9.25	11.7	14.2	27.78	49.69	-21.91	73.4	70.5	Bogra and Pubna	... } Rajshahye	
7.68	10.85	-3.17	12.2	13.4	41.66	54.98	-13.42	71.7	70.1	Rampore Beau- leah.	... } Dacca	
8.31	14.21	-5.80	14.5	13.5	51.18	72.08	-20.90	72.6	69.8	Dinagepore	... } Rungpore	
25.94	21.77	+4.17	20.0	16.5	112.48	105.96	+6.52	90.0	89.8	Julpigoree	... } Julpigoree and Cooch Behar.	
21.00	25.49	-4.43	21.5	21.8	139.41	142.65	-3.24	104.5	108.0	Darjeeling	... } Darjeeling Hill Tracts	
7.13	12.98	-5.85	11.0	12.9	51.19	54.66	-3.47	57.6	60.0	Purneah	... } Purneah and North	
3.57	8.86	-5.29	8.5	10.4	39.80	38.84	+0.96	53.7	51.2	Bhagulpore	... } Bhagulpore and Dur- bhunga.	
1.88	8.03	-6.15	5.3	9.9	31.45	40.67	-9.22	47.3	49.3	Mozufferpore	... } Motihari	
4.21	7.98	-3.77	10.0	10.3	34.58	37.68	-3.10	51.5	51.4	Chumparan	... } Sarun	
5.97	—	—	8.0	—	—	—	—	—	—	Dehree	... } Shahabad	
6.71	6.42	-0.71	9.2	12.0	29.36	35.88	-6.52	49.2	55.6	Buxar	... } Buxar	
5.02	6.02	-1.00	9.5	9.4	37.01	36.96	+0.05	47.0	49.2	Gya	... } Gya	
4.02	6.82	-2.80	11.8	10.7	40.62	36.30	+4.32	54.9	53.0	Patna	... } Patna	
5.10	7.32	-2.43	9.8	11.9	36.70	38.83	-2.13	51.6	60.4	Bankipore	... } Bankipore	
5.63	9.51	-4.48	12.3	13.0	38.86	45.62	-6.76	71.3	65.5	Bhagulpore	... } South Bhagulpore and Moughyr.	
9.61	8.19	+1.42	16.0	14.9	40.03	44.60	-4.57	71.7	71.9	Hazaribagh	... } Hazaribagh	
7.65	6.44	+1.21	12.8	14.3	44.34	42.02	+2.32	71.2	71.6	Ranchedee	... } Lohardaga and Man- bhoon.	
7.02	8.76	-1.74	13.0	17.5	50.23	48.01	+2.22	77.0	83.3	Chaubassa	... } Chauta Nag- Fore.	

Table of Rainfall recorded at Stations

Meteorological division.	District.	Station.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20		
ORISSA	Pooree	Pooree	2.25	2.95	0.65	0.69	...	0.20	3.15	0.02	0.27	...	0.02	0.17	0.07	...	0.30	0.03	0.60	...	0.05	0.37		
		Khurdah	0.92	0.50	0.84	0.84	...	0.06	4.35	0.02	0.27	...	0.15	0.15	0.14	0.12	0.12	0.18	0.10	0.05	0.07	0.25		
		Banpur	0.55	2.49	...	1.10	0.80	2.29	...	...	...	...	...	...	...	...	...	0.65	0.10	...	2.52	0.50	
		False Point	0.49	0.98	0.13	0.30	1.70	0.13	...	0.88	0.08	0.14	0.12	0.12	0.12	0.12	0.12	0.34	0.11	...	0.05	0.36		
		Hoochitola	0.06	0.30	0.45	0.03	0.08	2.13	0.12	...	0.10	0.12	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10		
	Cuttack	Jagatsingpore	0.80	0.35	...	0.22	2.50	4.70	...	0.18	0.28	...	...	...	0.22	0.27	...	...	0.75	0.05	...	0.50	
		Banki	0.95	1.00	3.20	0.80	0.22	0.13	4.35	1.22	0.18	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.14	0.01	...	0.40	0.50	
		Cuttack	...	1.84	3.61	0.04	0.02	0.02	4.49	0.01	0.11	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41	
		Kendrapara	...	0.10	1.25	...	...	0.04	3.41	...	0.20	...	...	...	...	...	...	...	...	...	...	...	...
		Jajpore	0.17	0.20	0.88	...	...	...	2.53	1.10	...	...	...	...	...	...	...	0.43	...	1.88	...	0.30	...
	Balasore	Chandbali	...	0.87	0.25	...	...	0.13	1.33	0.71	...	0.13	...	...	0.05	...	0.50	0.12	...	0.10	0.89	0.45	
		Bhuddruck	...	0.30	2.40	0.40	...	0.13	1.33	0.71	...	0.79	...	...	...	...	...	...	...	...	0.75	0.36	...
		Sorai	0.20	0.22	...	0.50	0.07	0.25	0.50	1.01	0.07	0.12	0.07	0.07	0.07	0.07	0.07	0.05	...	...	...	0.06	...
		Balasore	...	0.32	0.25	0.01	1.27	0.28	0.25	0.23	0.08	0.33	0.03	0.03	0.03	0.03	0.03	0.03	0.14	...	...	...	0.34
		Jellasore	1.10	0.50	...	0.40	0.08	0.45	0.40	0.60	...	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	
	Midnapore	Baripodah	...	0.74	0.44	1.04	0.04	0.16	0.26	1.31	0.01	0.03	1.35	...	0.53	0.94	...	0.77
		Contai	0.23	0.59	0.18	0.79	0.95	0.33	0.05	0.28	0.16	0.22	0.24	0.02	0.11	0.11	0.11	0.11	0.09	0.09	0.17	...	...
		Saugor Island	1.32	0.17	0.70	0.35	2.51	0.16	0.10	0.44	0.77	1.14	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.30	...	
		Tumlook	...	...	2.00	...	...	0.50	...	...	...	...	...	...	...	...	...	...	...	...	...	0.19	...
		Midnapore	...	0.32	0.23	0.08	1.11	0.21	0.19	0.04	0.02	0.74	...	...	0.18	...	...	...	...	...	...	0.24	...
	24-Pergunnahs	Ghatal	...	0.37	0.15	...	0.12	...	0.06	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Diamond Harbour	...	0.23	0.12	...	0.47	0.29	0.07	0.27	0.17	1.71	0.05	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	
		Alipore Jail	0.04	0.07	0.44	0.44	0.28	0.07	0.08	0.06	0.05	1.11	...	0.13	0.02	0.15	0.15	0.15	0.15	0.15	0.15	0.15	...	
		Barrackpore	...	0.38	0.13	...	...	...	...	0.50	...	...	...	...	...	...	...	...	...	...	...	...	...
		Dum-Dum	...	0.58	0.18	0.21	0.06	0.11	0.08	...	0.65	0.05	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	
	Howrah	Baraset	0.43	0.12	0.05	0.23	0.23	0.07	0.23	0.07	0.06	0.31	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	
		Buseerhat	0.03	0.75	0.22	0.69	0.09	...	0.59	...	0.58	0.05	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	
		Howrah	0.05	0.54	0.56	0.07	0.22	0.01	0.06	0.35	0.56	...	0.02	0.16	0.01	0.39	0.39	0.39	0.39	0.39	0.39	0.13	0.04	
		Mohesreka	0.20	0.04	0.30	0.37	1.10	0.30	0.02	0.01	...	0.17	0.62	...	...	...	...	...	...	...	0.61	...	...
		Hooghly	0.08	0.20	0.11	0.11	...	0.01	0.24	0.02	0.35	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	
	Burdwan	Jehanabad	0.19	...	0.05	0.09	0.46	...	0.11	0.03	0.06	0.26	0.30	0.02	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	
		Culna	...	...	0.31	...	0.12	...	...	0.26	...	0.48	...	0.50	...	...	...	...	...	...	...	...	...
		Burdwan	0.04	0.24	0.29	0.03	0.10	...	0.07	0.06	0.11	0.65	0.15	0.36	...	0.05	0.15	0.15	0.10	...	...	...	...
		Cutwa	...	0.20	0.30	...	...	0.07	0.11	0.65	0.15	0.36	...	0.21	...	...	...	...	2.50	...	...	...	...
		Raneeunge	0.50	0.36	0.39	...	0.30	1.85	0.04	0.68	0.35	...	0.21	...	...	...	...	...	...	...	...	...	...
	Bankoora	Bankoora	...	0.45	0.50	0.09	1.95	0.75	0.35	0.05	0.05	0.09	0.44	...	...	...	...	...	...	...	...	...	...
		Bishenpore	0.36	0.22	0.08	...	0.60	0.20	0.05	0.10	0.36	...	0.02	0.05	0.44	0.13	...	...	...	...	...	...	...
		Malinara	0.31	0.22	0.07	...	0.67	...	...	0.72	...	0.75	...	0.75	...	...	...	...	...	...	...	...	...
		Khatra	0.04	0.19	0.61	0.55	2.00	0.12	0.08	0.50	...	0.58	0.98	...	0.78	0.11	...	...	...	...	...	...	...
		Beerbhoom	...	Bh. Soory	0.34	0.09	0.57	0.12	0.40	0.24	0.14	0.22	0.11	0.41	0.01	...	0.02	0.01	...	...	...	...	...
	Nuddea	Hetampore	0.84	0.02	0.05	...	0.32	1.17	...	0.02	0.60	0.26	0.26	0.26	...	...	...	...	...	...	...	...	...
		Bongong	...	...	0.25	0.30	0.30	...	0.10	0.20	...	0.35	...	...	...	...	...	...	...	...	...	...	...
		Ranaghat	0.39	0.35	0.05	0.08	0.63	0.06	0.07	0.29	0.71	...	0.07	...	...	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
		Kishnaghur	...	...	0.50	0.01	0.07	0.01	0.07	0.17	0.11	0.41	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
		Choadainga	...	...	0.01	0.07	0.01	0.03	0.07	0.17	0.10	0.41	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	Khoolna	Meherpore	...	...	0.78	0.32	...																

in Bengal in September 1883.

21	22	23	24	25	26	27	28	29	30	Number of rainy days.	Average number of rainy days.	Total rainfall for the month.	Average rainfall for the month.	Heaviest rainfall during the month.	Total rainfall from 1st January 1883 up to 30th Sept. 1883.	Average rainfall from 1st January up to 30th Sept. 1883.	Station.	District.	Meteorological division.
...	0'51	0'42	0'06	0'21	0'18	0'24	0'50	0'84	10	17'7	13'61	9'93	3'15	52'79	45'26	Pooree.	Pooree	...	ORISSA.
...	0'23	0'02	0'20	0'12	...	...	18	18'1	9'58	10'25	4'35	59'61	52'52	Khurdah.				
0'40	0'25	...	0'06	0'06	0'70	1'31	...	12	15'2	11'81	9'42	2'52	57'93	46'79	Banpur.				
0'11	...	0'06	0'40	0'60	...	...	17	15'0	8'78	11'12	1'70	67'67	58'49	False Point.				
0'03	...	0'53	0'40	0'60	...	...	17	—	7'49	—	2'13	—	—	—	Hooikitola.			
0'08	0'78	0'58	0'03	0'05	0'55	0'02	...	22	—	16'21	—	4'35	—	—	—	Jagatsingapore	Cuttack	...	
0'07	1'24	0'02	0'60	0'04	0'05	...	14	19'2	12'93	9'71	4'49	65'43	50'52	Banki.					
0'20	...	0'47	0'08	1'10	...	...	8	12'8	6'35	9'28	3'49	62'71	50'69	Cuttack.				
...	...	...	0'23	1'07	0'18	...	12	13'9	6'80	11'35	2'53	61'62	52'00	Kendrapara.				
0'06	...	0'38	0'38	0'13	...	...	12	14'5	8'38	10'04	2'40	55'61	52'26	Jajpore.				
0'04	...	0'40	0'07	0'70	...	...	15	16'2	3'78	12'55	1'27	60'11	58'36	Chandbali.				
...	0'05	0'07	0'05	0'01	...	...	10	12'2	5'49	10'25	1'10	58'31	53'93	Bhuddruck.				
0'04	0'09	0'23	0'19	0'33	...	...	17	16'2	7'80	11'71	1'35	54'61	54'72	Sorah.				
0'04	0'09	0'08	0'07	1'35	0'63	...	20	16'1	11'27	11'99	2'51	62'61	63'27	Tumlook.					
...	0'30	...	0'16	0'01	...	...	4	9'0	3'30	8'08	2'00	50'75	51'87	Midnapore.				
...	0'31	...	...	...	...	...	13	15'2	4'28	8'41	1'11	47'61	51'64	Ghatal.				
...	0'06	0'42	...	...	...	...	17	15'9	4'74	10'48	1'71	51'92	60'66	Diamond Harbour.				
0'14	0'01	0'11	2'14	...	...	...	18	19'2	5'35	9'12	2'14	46'27	57'06	Alipore Jail.				
...	0'20	0'25	...	...	...	...	6	13'7	2'47	7'30	0'50	47'21	49'68	Barrackpore.				
0'08	0'05	0'08	0'11	...	...	...	15	17'0	3'16	7'97	0'65	47'15	53'10	Dum-Dum.				
0'02	0'04	0'91	0'25	0'05	...	...	15	14'8	2'93	8'88	0'81	45'73	62'23	Barasat.				
0'03	0'38	0'31	0'08	0'34	0'01	...	23	17'7	4'34	9'07	0'56	43'92	57'04	Busseerhat.					
...	1'09	0'08	0'08	0'04	0'94	15	14'3	5'89	8'90	1'10	56'81	55'63	Howrah.	...	Howrah	...			
...	0'29	0'09	0'09	0'02	0'02	...	15	17'3	2'44	7'65	0'99	48'67	51'37	Serampore.	...	Hooghly	...		
...	0'06	0'16	0'05	0'01	...	...	8	14'5	3'34	7'83	1'47	51'72	54'90	Hooghly.				
0'03	0'13	...	...	...	...	...	14	15'0	1'89	9'37	0'46	52'48	57'06	Jehanabad.				
...	1'64	1'40	0'50	...	...	...	8	9'8	5'21	6'10	1'64	51'83	46'73	Culna.	...	Burdwan	...	
...	0'08	...	0'32	...	...	...	18	16'0	1'66	7'90	0'32	65'59	52'67	Burdwan.				
...	2'30	...	0'39	...	...	...	11	13'5	4'78	8'53	2'30	44'30	50'08	Cuttwa.				
...	0'05	...	0'25	...	...	...	12	13'8	7'58	6'88	2'50	69'49	47'35	Ransegunge.				
0'03	0'02	0'23	0'17	0'06	0'14	...	14	15'5	5'32	8'78	1'95	65'66	50'91	Bankoora.	...	Bankoora	...		
...	0'88	...	...	2'38	...	...	15	13'5	5'24	7'17	2'38	63'44	53'90	Bishenpore.				
...	0'41	0'09	...	...	...	...	6	12'0	4'55	5'56	1'75	45'87	46'09	Maliara.				
...	0'23	0'06	0'06	0'54	...	...	14	14'7	7'04	10'15	2'00	64'43	54'01	Khatra.				
...	0'23	...	0'06	2'70	...	...	10	15'1	6'24	10'80	2'70	47'49	55'75	Bh. Soory.	...	Beerbhoom	...	
...	2'28	...	...	1'05	...	...	7	10'7	2'55	7'47	1'05	43'24	53'48	Bongong.	...	Nuddea	...	
...	0'23	0'12	...	...	...	...	10	11'2	5'43	6'43	2'28	54'71	50'51	Ranaghat.				
...	0'32	0'12	...	...	...	...	10	14'0	2'69	7'36	0'71	25'33	50'34	Kishnaghur.				
...	1'23	0'45	...	0'59	...	...	4	14'5	1'42	10'06	0'50	33'21	56'48	Chooadanga.				
0'04	0'72	0'05	0'72	0'05	...	...	14	12'7	3'76	7'77	1'23	38'82	51'62	Meherpore.				
...	0'05	...	3'02	0'04	...	...	14	15'5	6'32	8'41	3'02	62'54	58'10	Kooshtea.				
...	0'15	1'52	0'10	0'56	...	...	10	12'8	7'80	9'05	2'38	69'44	64'31	Satkira.	...	Khoolna	...	
...	0'05	0'76	0'05	4'43	1'68	...	20	14'8	7'85	9'09	1'68	4'627	59'36	Bagirhat.					
0'05	0'09	1'32	1'31	0'21	0'82	...	12	13'6	5'29	7'42	1'33	43'48	54'28	Narail.	...	Jessore	...		
0'03	1'14	0'05	1'91	0'10	0'29	...	18	16'0	5'73	8'92	1'91	4'92	60'73	Je-sore.					
...	0'22	...	1'61	0'52	...	...	9	12'8	2'50	8'90	0'61	37'31	68'76	Jhenidah.				
...	0'83	1'52	...	1'52	...	...	10	14'3	3'95	7'61	1'52	52'30	55'82	Magoorah.				
...	0'82	0'15	0'11	...	...	...	11	14'4	4'26	9'54	2'21	45'61	52'12	Kandi.	...	Moorshedabad	...	
...	0'52	0'03	0'05	0'02	...	...	13	14'1	6'19	10'30	1'89	43'25	50'59	Rampore Haut.				
...	1'53	0'10	0'23	0'08	...	...	12	14'9	2'74	9'47	1'25	38'71	49'83	Berhampore.				
...	2'10	...	0'19	...	...	...	4	15'4	2'75	10'02	1'53	33'86	49'62	Lalbagh.				
...	0'55	0'35	0'35	...	...	...	9	14'4	3'45	9'82	0'65	34'63	49'00	Azingunge.				
...	0'58	0'06	2'41	0'55	...	...	14	13'6	6'40	10'53	2'41	41'05	49'55	Jungpore.				
...	0'06	0'16	0'20	0'38	0'77	0'25	1'67	...	17	18'3	17'10	15'07	3'80	140'29	132'06	Cox's Bazar.	...	Chittagong	EAST BENGAL.
...	0'64	0'33	0'50	1'16	4'99	...	20	18'3	15'67	13'71	4'99	120'97	96'12	Chittagong.					
...	0'01	0'41	0'13	0'62	0'34	0'91	1'50	0'09	27	19'5	10'48	13'23	2'38	93'24	89'94	Rangamati.	...	Chittagong	hill Tracts
...	0'12	0'25	0'63	0'30	1'30	1'75	0'52	...	23	21'4	8'97	13'25	1'45	82'70	79'87	Kuma.			
...	0'16	0'08	0'25	0'56	1'95	0'37	0'08	...	18	14'3	8'88	10'80	2'34	68'38	73'28	Agartola.			
...	0'40	0'27	1'10	0'85	...	...	11	17'6	8'24	13'76	1'32	72'22	90'65	Patuakhally.	...	Backergunge	...	
...	0'46	0'14	0'17	0'43	0'08	...	13	15'0	6'65	11'63	1'75</								

Table of Rainfall recorded at Stations

Meteorological division.	District.	Station.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
NORTH BENGAL	Pubna	Pubna	...	...	0'15	0'53	...	...	0'18	0'20	0'06	...	...	0'09	...	...	...	...	...	...	0'07	...
		Serajgunge	...	0'55	0'20	...	...	...	0'22	...	0'55	...	...	...	...	...	...	...	...	...	...	0'07
	Bogra	Sherpore	...	...	0'21	...	...	...	...	0'31	0'13	0'11	0'12	...	...	...	...	...	...	...	...	0'05
		Nowkhilla	...	0'07	0'27	0'03	...	...	...	0'31	0'13	0'13	0'07	0'06	0'04	0'08	...	0'28	0'04	...	...	0'05
		Bogra	...	...	0'14	...	...	...	...	...	0'19	...	0'09	0'06	...	...	...	...	...	...	0'12	...
		Panchbibi	...	...	...	0'11	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Rajshahye	Beauleah	0'02	0'14	0'27	0'20	0'02	0'01	...	0'10	0'50	1'00	0'02	0'01	0'00	...	0'17	...	...	...	...	0'01
		Natore	...	...	0'29	...	...	...	...	0'02	...	0'04	0'14	...	...	...	...	...	...	...	...	...
		Nowgong	...	...	...	...	...	...	...	0'03	...	0'11	...	...	...	...	...	...	...	...	...	...
	Maldah	Maldah	...	...	...	0'07	...	...	...	0'10	0'57	0'11	0'08	0'02	...	...	...	0'18	0'22	...	...	...
	Dinapore	Mohadebpore	...	0'30	...	...	...	...	...	0'08	...	2'38	...	...	...	...	...	0'09	...	...	...	...
		Chuammon	...	...	...	0'49	...	...	...	...	0'28	0'22	0'11	...	0'97	1'65	0'75	0'71	...	...	0'10	...
		Raigunge	...	...	0'61	0'61	...	...	...	0'05	0'03	0'06	0'03	0'19	...	0'34	0'75	0'10	0'20	0'06	...	0'10
		Dinapore	...	...	...	...	...	...	...	0'08	...	...	0'69	...	...	...	...	...	...	...	...	...
		Baloorhat	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Rungpore	Bhawanigunge	0'15	...	...	...	...	...	...	0'20	...	0'03	0'07	0'09	...	0'13	0'34	4'63	0'50	0'24	0'03	0'07
		Rungpore	...	...	...	...	0'01	...	...	0'04	0'02	...	...	...	...	0'12	1'90	0'96	0'04	0'16	1'19	...
		Kurigram	...	0'28	0'63	...	...	...	...	0'02	0'25	0'65	...	3'05	1'40	0'64	1'48	1'15	0'08	0'21	...	...
	Julpigoree	Julpigoree	...	...	2'53	...	...	...	...	0'17	...	0'24	...	0'35	...	2'86	4'34	2'54	0'15	0'24	6'45	2'63
	Cooch Behar	Dinhatta	0'27	...	0'09	0'02	0'05	1'25	...	0'02	0'03	0'05	...	0'16	...	0'37	0'84	3'99	0'05	0'91	0'12	0'48
		Cooch Behar	...	0'10	0'55	...	1'33	...	...	0'02	...	...	0'12	0'20	...	0'52	3'33	1'65	0'82	...	8'37	...
		Makligunze	...	0'41	...	0'39	0'13	...	0'83	0'03	...	0'07	0'86	1'32	0'72	4'56	0'13	0'15	0'17	9'82	...	...
		Matabhanga	...	0'05	...	0'07	...	0'10	...	0'06	...	0'77	...	2'72	0'80	3'49	1'22	1'24	0'15	3'92	...	...
	Darjeeling	Buxa	...	...	1'15	0'08	...	1'30	...	0'37	0'84	0'96	0'86	3'90	2'32	0'10	1'84	0'99	0'04	5'70	0'03	
		Siliguri	...	0'47	...	...	...	0'11	0'04	0'13	0'29	1'01	1'20	0'18	0'22	0'36	0'37	0'45	0'15	...	0'26	...
		Darjeeling	...	3'33	0'05	...	0'15	...	...	1'45	0'15	...	...	0'21	0'05	...	...	...	...	...	...	...
		Kalimpong	0'77	2'10	...	0'15	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
NORTH BHAR	Purneah	Kissengunge	...	0'09	...	...	...	...	...	0'20	...	0'48	...	0'29	0'33	0'88	...	1'95	...	0'30	0'43	...
		Arrareh	0'37	...	0'06	...	...	...	0'06	0'01	0'05	0'18	...	2'63	1'12	0'65	...	1'08	1'18	...	...	...
		Purneah	0'69	...	...	...	...	...	...	...	...	...	...	0'20	1'14	0'62	0'11	0'67	1'08	...	...	...
	North Bhagulpore	Maddapore	...	...	...	...	...	...	0'06	...	...	...	0'76	...	0'50	0'02	...	0'10	2'55	2'29	...	...
		Soopool	...	...	...	...	...	...	...	...	...	...	0'34	0'43	0'04	...	...	...	...	...	...	...
	Durbhunga	Tajpore	...	...	0'40	...	...	...	...	0'30	0'07	0'07	...	1'31	0'58	0'10	1'41	...	0'41	...	...	...
		Durbhunga	...	...	...	...	...	...	...	...	...	...	...	...	0'88	...	0'70	...	0'15	...	0'18	...
	Mozafferpore	Sitamarhi	...	...	0'02	...	...	...	...	0'30	0'16	...	...	0'02	0'75	...	...	0'09	...	0'16	...	0'05
		Mozafferpore	...	0'07	0'31	0'11	...	...	...	0'17	0'26	0'04	0'34	...	...	...	...	...	...	0'16	1'72	...
	Chumparun	Motihari	...	...	...	0'18	...	...	...	...	...	...	...	...	...	...	...	...	0'29	0'14	...	...
		Bettiah	...	...	0'04	0'03	...	...	...	...	...	...	...	0'10	...	0'38	...	...	...	...	...	...
		Gopalgunge	...	...	0'74	...	...	0'10	...	...	0'04	0'07	0'26	0'45	0'87	0'79	0'22	0'30	0'16	...	...	...
		Sewan	0'09	...	...	0'20	...	...	...	...	...	0'02	0'61	0'35	0'35	...	...	...	...	...	...	...
SOUTH BHAR	Shahabad	Buxar	0'59	0'07	0'23	...	0'04	...	...	0'76	3'05	...	0'50	0'37	1'15	0'60	0'30	...	...	...	...	...
		Dehree	0'40	...	0'18	...	...	...	...	...	0'45	...	0'52	0'10	...	1'50	1'40	...	...	...	...	...
		Bhutooah	1'62	...	...	...	...	...	...	...	0'45	...	1'35	...	1'20	...	0'10	...	...	...	...	...
		Sassaram	0'65	...	0'22	0'23	...	...	...	0'09	...	0'16	2'12	0'05	3'76	...	0'30	...	...	...	...	...
		Arrah	0'23	0'11	...	...	0'23	...	...	0'23	0'31	0'09	0'20	0'07	0'03	0'85	0'56	0'06	...	...	...	...
	Gya	Aurungabad	0'50	0'07	0'18	...	...	...	0'05	...	0'30	0'26	0'15	0'41	0'18	1'11	3'57	...	0'15	...	...	...
		Gya	0'03	...	0'42	...	0'11	0'17	...	...	0'24	...	1'20	1'43	0'28	...	0'04	0'15	...	...	0'29	...
		Nowdah	0'28	0'06	0'11	...	...	0'24	...	...	0'09	...	1'88	0'24	0'16	...	0'20	0'40	...	0'60	...	...
		Jehanabad	0'54	...	...	...	...	...	...	...	0'90	1'80	0'16	0'20	0'20	0'09	0'20	0'40	...	0'60	...	...
	Patna	Patna	0'17	0'22	...	...	...	...	0'42	0'22	0'12	0'34	0'26	0'03	0'50	...	0'95	1'30	...	...	...	...
		Dinapore	0'20	0'20	...	...	...	...	0'35	0'30	0'20	0'20	0'20	0'06	0'08	...	0'23	0'30	0'10	...	...	...
		Behar	0'13	0'55	0'06	...	...	...	0'31	0'13	...	...	...	1'48	...	0'45	1'18	...	...	0'33	0'23	...
		Barh	0'22	0'10	...	...	...	0'20	0'17	0'10	0'30	1'50	...	0'20	0'08	...	0'20	0'08	0'33	0'23	...	...
	Monghyr	Begooserai	0'11	...	0'29	...	0'19	...	...	0'28	0'51	0'59	...	2'99	0'29	0'57	1'67	0'98	...	...	...	...
		Monghyr	0'15	...	0'22	...	0'25	...	0'41	0'21	...	0'48	0'40	0'80	...	2'30	0'2					

in Bengal in September 1883—concluded.

21	22	23	24	25	26	27	28	29	30	Number of rainy days.	Average number of rainy days.	Total rainfall for the month.	Average rainfall for the month.	Heaviest rainfall during the month.	Total rainfall from 1st January up to 30th Sept. 1883.	Average rainfall from 1st January up to 30th Sept. 1883.	Station.	District.	Meteorological division.
...	0'09	...	0'22	1'56	8	15'1	3'08	10'91	1'56	40'29	61'08	Pubna Serajgunze.	Pubna	...	NORTH BENGAL.
...	...	1'05	1'66	0'55	...	1'45	4	13'3	3'13	10'17	1'45	38'61	64'77	Sherpore Nowkhilla.	Bogra
...	0'99	1'54	0'18	0'26	...	0'14	12	14'6	3'63	9'40	1'66	36'90	57'20	Boora.
...	0'16	...	...	1'34	...	...	7	9'7	2'96	2'82	12'08	1'54	46'04	71'83	Panchbibi.	...	...	...
...	0'01	0'01	0'03	0'20	0'10	...	19	15'4	3'72	10'88	1'00	30'56	54'25	Beulah.	Rajshahye.	...	...	...
...	0'09	0'12	...	0'08	0'90	...	7	—	1'36	—	0'90	—	—	—	Natore.	...	...	...
0'03	0'30	1'29	...	0'24	0'07	...	...	13	14'4	3'28	10'53	1'29	34'70	48'54	Maldah	Maldah.	...	...
...	...	0'10	...	0'48	...	...	5	13'0	3'33	9'15	2'38	37'53	59'94	Mohadebpore	Dinagepore.	...	...	...
0'96	0'05	0'08	0'03	0'26	0'34	0'03	0'02	10	14'0	5'85	12'26	1'65	40'32	52'44	Churamou.	...	...	...
0'20	0'12	0'44	...	3'75	0'05	...	...	16	11'6	4'33	8'65	1'46	48'30	56'49	Raijunge.	Dinagepore.	...	...
0'29	0'34	0'33	...	0'11	...	...	5	—	1'55	—	0'69	30'67?	—	—	Baloorhat.	...	...	...
...	1'56	0'05	0'05	0'28	...	...	7	11'4	3'36	12'17	1'56	53'62	65'06	Bhawanigunge	Rangpore.	...	...	...
0'27	0'22	0'04	0'06	0'54	0'40	...	17	15'9	8'41	13'16	4'63	57'60	79'65	Rungpore.	...	...	...	...
1'08	0'85	0'06	0'36	0'22	0'25	...	...	15	12'6	6'98	13'05	1'90	64'66	81'81	Kurigram.	...	...	...
...	0'85	0'06	2'38	0'10	0'92	0'15	0'79	19	14'3	14'49	15'97	3'05	79'48	93'87	Bagdogra.	...	...	...
0'36	1'18	4'85	0'18	...	0'94	0'18	0'31	0'22	19	18'2	30'80	24'13	6'45	142'11	122'64	Julpigoree	Julpigoree.
...	1'86	1'58	0'86	0'08	0'07	0'02	0'03	22	16'5	12'93	24'56	3'90	84'54	110'08	Dinhatta	Cooch Behar.	...	...
2'28	1'45	4'05	3'05	0'03	0'08	0'05	0'45	20	15'9	28'72	23'44	8'37	133'49	123'54	Cooch Behar.	...	...	...
0'83	0'25	2'38	7'15	0'33	...	0'87	...	20	14'7	26'60	24'62	7'15	116'52	117'06	Mickilunge.	...	...	...
3'27	0'15	6'77	4'67	0'68	0'06	...	0'48	19	17'3	30'67	26'98	6'77	141'03	126'20	Matabhangha.	...	...	...
...	4'50	0'95	...	0'28	0'03	0'36	0'34	4'11	22	21'2	31'05	33'72	5'70	203'23	208'86	Buxa	Darjeeling.
0'35	0'31	0'20	1'51	10	—	5'72	—	1'70	—	—	—	Siliguri.	Hill.
...	0'22	0'76	0'35	1'40	0'11	0'31	0'02	21	22'4	11'06	17'53	3'33	112'97	113'99	Darjeeling.	Kalimpong.
...	0'67	0'81	...	0'95	0'15	0'29	...	14	—	7'96	—	2'10	81'67?	—	—	—	—	—	...
3'10	0'31	0'60	...	0'09	0'19	...	0'35	14	14'2	8'36	13'31	3'10	64'58	69'67	Kissengunge.	Purneah	...	NORTH BEHAR.	
1'49	...	1'68	...	...	...	...	...	9	12'6	10'68	13'84	2'63	66'28	65'17	Arrareah.	...	...	...
...	0'18	0'13	...	0'16	0'08	...	...	16	14'0	5'42	14'32	1'14	38'19	60'72	Purneah.	...	...	...
0'60	0'65	0'05	...	...	0'04	...	...	6	11'4	4'17	10'66	2'20	58'37	49'34	Maddapore	North Bhagulpore.	...	...
...	0'08	0'45	...	...	0'30	...	...	9	10'3	4'65	7'55	1'41	44'65	40'31	Tajpore	Durbhunga.	...	...
...	0'16	1'42	0'37	...	...	...	...	6	11'0	2'62	8'92	0'88	42'00	44'51	Madhubani.	...	...	...
0'07	0'47	...	1'02	0'23	...	7	9'2	2'65	7'95	1'02	36'97	41'01	Sitamarhi	Mozufferpore.	...	...	...	...
0'31	0'04	0'08	...	0'15	0'05	...	...	11	11'0	4'88	8'14	2'05	49'41	40'45	Mozufferpore.	Hajipore.	...	...
0'75	0'50	...	...	...	0'35	...	...	3	9'3	0'78	7'89	0'35	37'45	45'65	Motihari	Chumparun.	...	...
...	1'21	...	...	...	0'45	...	...	5	9'5	1'91	8'96	0'75	37'42	47'32	Bettiah.	...	...	...
1'25	...	0'50	...	...	0'50	...	...	8	11'0	2'95	5'83	1'21	30'80	42'01	Gopalunge.	...	...	...
...	0'16	...	...	...	0'56	...	...	10	12'6	6'47	6'91	3'65	35'69	35'66	Buxar	Shahabad	...	SOUTH BEHAR.
...	...	...	...	...	...	...	...	8	5'97	—	1'40	—	—	—	Dehri.	...	...	...
...	...	...	...	...	...	...	...	5	10'7	4'72	6'48	1'62	28'50	39'55	Bhoochah.	Sassaram.	...	...
...	0'34	...	...	0'98	...	...	...	9	12'5	7'58	5'53	3'76	29'70	38'33	...	Arrah.	...	...
...	...	...	...	...	...	...	...	13	12'2	4'06	8'42	0'98	31'64	41'81	...	...	...	...
...	0'04	0'81	...	...	...	...	...	11	9'0	6'87	6'49	3'57	32'90	38'93	Aurungabad	Gya.	...	...
...	0'13	0'29	...	...	...	...	...	9	12'1	4'18	6'66	1'43	45'84	37'53	Nowndah.	...	...	...
...	0'48	...	...	...	0'05	...	...	12	12'2	5'01	7'99	1'30	59'35	38'32	Patna	Patna.	...	...
...	0'10	...	...	...	...	...	...	13	9'9	2'65	6'59	0'35	31'05	37'92	Dinapore.	...	...	...
0'60	...	...	...	...	...	...	...	10	12'8	4'43	5'91	1'48	59'73	40'62	Behar.	...	...	...
...	...	...	...	...	...	...	...	12	9'9	4'01	7'29	1'50	40'10	38'57	Barrh.	...	...	...
...	0'13	0'16	...	0'69	0'75	...	...	12	10'9	9'16	6'73	2'99	51'91	37'88	Beogoosera.	Moughyr.	...	...
...	0'13	0'16	...	0'75	...	...	...	10	12'6	3'86	7'87	1'73	28'31	40'80	...	Jamini.	...	...
...	0'22	...	...	...	...	...	...	10	12'8	2'25	7'23	0'98	40'62	42'33	Bhagulpore	South Bhagulpore.	...	...
...	...	...	...	...	...	...	...	7	13'2	4'87	7'83	2'36	53'23	42'74	Banka.	...	...	...
...	2'23	0'15	...	0'33	...	...	...	11	10'1	3'87	11'20	1'17	28'84	50'46	Rajmehal	Sonthal Per-gumhahs.	...	...
...	0'08	...	...	0'31	...	0'86	...	10	12'6	6'49	9'78	1'50	48'10	52'98	Pakour.	...	...	...
...	0'29	...	...	1'18	0'15	0'08	...	9	14'8	3'29	8'48	1'47	44'34	47'04	Nya Doomka.	Deoghar.	...	...
...	0'15	...	...	...	...	...	...	17	11'2	5'09	6'65	1'18	45'04	45'80	Jauntara.	...	...	...
...	0'75	0'43	1'23	0'06	...	...	...	19	15'9	10'55	8'18	1'72	42'35	46'36	Pachamba	Hazaribagh.	...	CHUTIA NAGPUR.
...	0'74	...	...	...	...	...	...	17	17'8	11'56	7'80	1'94	50'19	45'32	...	...	...	...
0'66	0'02	0'06	...	...	...	...	...	13	14'6	8'58	7'83	1'38	37'51	46'01?	Seemtagarh.	Mowdee Hills.	...	...
...	0'10	...	...	...	...	...	...	15	11'4	7'76	8'38	2'25	—	—	Jhoomra.	Gobindpore.	...	...
...	0'45	0'10	0'26	...	...	...	...	14	17'0</									

METEOROLOGICAL AND RAINFALL SUMMARY FOR THE MONTH OF SEPTEMBER 1883.

THE normal meteorological conditions in Bengal during September resemble those of July and August to a very considerable extent. It is usually of course a month of steady rainfall over the whole Province, and though the rainfall is not so heavy as in the previous two months, its distribution is to a great extent similar. The mean directions of the air motion of the Bay of Bengal south-west monsoon current are very similar in character to those of the two preceding months, but the mean wind velocities from the commencement of this month begin gradually to fall off, until at its close the monsoon current is very considerably less powerful than during the previous month, and even considerably weaker than in the earlier parts of the same month. This is the case of course, because the conditions which had originally brought about or induced the south-west monsoon at the beginning of June are at this time being slowly, but surely, effaced.

The gradual falling off in strength of the south-west monsoon current in September, as compared with that of July and August, and the distinct effect which such falling off has on the amount of rainfall received in the Province, is perhaps most clearly seen in the form of a tabular statement. In preparing this table, the fourteen Bengal stations have been selected, from which returns of air motion and rainfall have been received for the longest period, and the numbers given are the normals for the three months—July, August and September. For each month there are shown the mean wind direction, together with the percentage of steadiness; second, the mean daily wind velocity in miles; and third, the normal rainfall.

STATION.	WIND DIRECTION AND STEADINESS.						DAILY WIND VELOCITY IN MILES.			RAINFALL IN INCHES.		
	July.		August.		September.		July.	August.	Sep'tem- ber.	July.	August.	Septem- ber.
	Direction.	Percentage of steadiness.	Direction.	Percentage of steadiness.	Direction.	Percentage of steadiness.						
False Point	S 63° W	66	S 63° W	53	S 32° W	39	232.5	215.6	174.6	14.04	14.70	11.45
Outtack	S 42° W	55	S 48° W	46	S 7° W	21	82.2	63.6	56.9	12.17	11.39	9.47
Saugor Island	S 29° W	61	S 27° W	51	S 8° W	53	320.0	270.2	223.2	15.56	15.65	11.91
Calcutta	S 11° E	65	S 17° E	57	S 27° E	43	116.4	132.2	116.9	12.87	14.08	10.03
Burdwan	S 22° E	49	S 34° E	50	S 30° E	44	109.0	93.6	76.8	12.08	12.56	8.38
Berhampore	S 44° E	53	S 45° E	45	S 45° E	38	126.8	99.5	85.4	10.60	10.78	8.75
Jessore	S 16° E	70	S 16° E	62	S 25° E	65	106.1	98.6	79.0	11.50	11.88	9.23
Chittagong	S 42° E	63	S 31° E	51	S 27° E	32	172.6	145.3	108.2	22.42	21.12	13.74
Dacca	S 21° E	80	S 16° E	70	S 75° E	57	186.0	151.8	114.1	13.00	12.56	10.68
Purneah	S 75° E	66	S 79° E	62	S 79° E	47	87.8	69.5	69.0	15.38	14.13	14.91
Durbhanga	S 8° E	53	S 85° E	60	S 87° E	51	114.7	105.4	82.0	12.98	10.41	9.21
Gya	S 68° E	19	S 61° E	23	S 78° E	28	68.2	58.3	51.5	11.37	9.64	6.53
Patna	N 82° E	37	S 67° E	28	S 84° E	39	72.8	71.0	65.8	10.42	9.61	8.33
Hazaribagh	S 13° E	18	S 41° W	13	S 57° E	22	265.4	180.6	167.6	12.78	12.66	7.37

The numbers given in this table clearly bear out the above statement that in normal years the mean air motion over Bengal in September is nearly identical in general character with that of the preceding two months; second, that a very perceptible decrease takes place in the daily wind velocity in September from that of July and August; and third, that this diminution of air motion re-acts directly on the rainfall. Thus taking the mean daily velocity over the whole of Bengal in July as 100, in August the mean wind velocity is equal to 88 and in September to 74. Again, taking the mean rainfall at the 14 stations in Bengal above given to be equal in July to 100, the rainfall in August is equal to 96, and in September to 75, or, in other words, the amount of rainfall decreases in September to almost precisely the same proportional extent as the diminution of the wind velocity of the monsoon current. There is of course another very important factor of the monsoon current, which will influence the rainfall over the Province to fully as great an extent as the velocity, and this is the depth or volume of the current. Unfortunately we have no means by which the depth or volume of the monsoon current can be estimated, but that this factor has almost a predominating influence on the rainfall was shown in the meteorological summary for the month of June of the present year. It is of course probable that, when dealing with the averages of a number of years as in the above table, the effect of alterations or variations in the depth or volume of the current in different years will to a great extent disappear, and thus the above numbers deal with a monsoon current of *average* depth or volume, as well as giving the average wind direction, velocity, &c. The statement made previously may thus probably be more accurately stated that, with a monsoon current of *average* depth or volume, the amount of rainfall in September, when compared with the rainfall of July and August, diminishes in direct proportion to the diminution in the wind velocity.

The actual amount of rainfall in September in Bengal, as in the case of the two preceding months, will depend mainly on the strength and the depth or volume of the Bay of Bengal monsoon current, but its distribution will be affected by the same causes that were discussed in the summaries of July and August. There are three primary causes which will affect the distribution of rainfall over any land area. Thus areas of increased rainfall are

always to be expected, first, from proximity to a sea or ocean; second, from the neighbourhood of ranges of hills, mountains or high land generally; and third, increased precipitation may be looked for in those areas where any interaction or interference of moisture-laden currents takes place, and which of necessity must also produce ascensional movement of the air. Secondary actions are also frequently at work modifying such distribution, and in Bengal prominent among such actions are the formation in the Bay of Bengal, and passage over the land, of certain areas of low pressure or small cyclonic vortices, which bring large amounts of rain to the districts which come within their influence: and as the line of country through which they may pass may vary very considerably, they are prominent causes in modifying the rainfall in particular years, and of introducing abnormal variations.

The normal distribution of rainfall in the Province of Bengal in September shows very clearly the influence of two out of the three permanent causes of rainfall variation mentioned in the last paragraph. Thus the areas of heaviest rainfall are, first, those in the hills and the districts at their base; and second, those which are in the neighbourhood of the sea. A line of heavy rainfall, to the north of which all stations receive rainfall in excess of 20 inches, runs almost parallel to the Darjeeling Hills, but at some little distance from their base, coming as far south as Dinhatta. A second line, showing the area receiving from 15 to 20 inches of rain, runs nearly parallel to the first line, and includes the districts as far south as Bagdogra. Another area, receiving rainfall in excess of 15 inches, is in East Bengal, and includes Fenny, Noakholly, &c. The area receiving between 12 and 15 inches of rain, is included in a line running from Balasore in an easterly direction, till it reaches Bhola in the Backergunge district, where it turns northward and runs in a north-westerly direction almost parallel with the Tipperah, Garo, and Darjeeling Hills, and also parallel to the line of 15 inches rainfall first mentioned. It thus includes a considerable part of East and North Bengal. The line of 10 inches starting from Falsa Point runs almost parallel to the line of 12 inches, and includes the southern parts of South-West Bengal and of North Bengal, together with the Sonthal Pergunnahs district, and some parts of Bhagulpore and Durbhanga. The greater part of South-West Bengal and of Chutia Nagpur fall inside this line, and receive amounts varying from 10 to 8 inches. Finally, the northern parts of Chutia Nagpur and the greater part of South Behar receive amounts less than 8 inches. The minimum rainfall for the month over the whole Province is to be found in certain parts of South Behar and Chutia Nagpur, and in an area of South-West Bengal, including such stations as Ranaghat, Kishnaghur, Culna, and Ranigunge. The explanation of this second curious patch of deficient rainfall is probably that which was advanced for the almost similar case in the normal July rainfall, and which explanation was given in the summary for that month. It was there shown that the above three permanent causes of rainfall variation are all at work in modifying the normal rainfall distribution in Bengal, and that it was because these districts were not influenced by any of the causes that induce increased rainfall that they receive a comparatively smaller rainfall.

Meteorological Summary for the month.—Up till nearly the close of August the Bay of Bengal south-west monsoon current had apparently been fairly normal in strength, as shown by the wind velocities of the last week in that month, but it would appear probable that it was deficient in depth or volume, for during the same period the rainfall in Bengal was distinctly below the normal. The monsoon current then slackened, and during the first few days of September a small and somewhat feeble barometric depression was formed at the head of the Bay, and during its formation slight winds of indraught towards the sea area prevailed. The rainfall in Bengal at this period was slight and scanty, but with the advance of the depression inland, the monsoon winds strengthened very considerably, and brought general rainfall to all districts; while on the 3rd and 4th of the month at many stations the rainfall was very heavy. A second small cyclonic storm was developed in the north-west angle of the Bay and reached the Orissa coast on the 7th instant. This second depression had developed to a rather greater extent than the former one, and was accompanied by stronger winds. The barometer also fell to a considerable extent during the passage of the small storm, and a pressure lower than 29.5 inches was registered. With the advance inland of this depression, strong monsoon winds again set in over the Province, which brought heavy rainfall to the greater part of the reporting area on the 8th, 9th, and 10th instant; but the effect of this large inrush of moisture-laden winds quickly died away, and with a gradually increasing pressure over the whole Province, the monsoon winds, which up to this time had been blowing strongly, began to slacken, and from the 14th or 15th instant the monsoon current became decidedly feeble, and a more or less pronounced break in the rains commenced in Orissa and South-West Bengal, and at some stations in East Bengal, though rain continued to fall in other divisions, and in many cases in large quantities. At this time pressure over the Province was about normal, but from about the 15th instant it commenced to increase slowly, but steadily, over the whole reporting area, and the force of the monsoon winds also steadily diminished, so that the partial break in the rains continued to be fairly well marked in Orissa, South-West and East Bengal up to the 24th instant, though in Orissa showers had fallen on the 19th and 20th. From the 24th to the 29th instant, however, rainfall in those districts was rather more general, but the area of rainfall rapidly contracted owing to the feebleness of the monsoon wind. Rainfall also in North and South Behar and in Chutia Nagpur commenced to diminish from about the 20th instant, and at the close of the month these districts were quite rainless. This rapid contraction of the area of rainfall and practical stoppage of the rainy season at the very early period of the end of September was apparently brought about by the fact that pressure had continued to increase with very

slight exceptions slowly and steadily from the middle up to the close of the month, so that it was for the whole of the last two weeks of the month considerably in excess of the normal.

Pressure had also become nearly equal in all districts of the Province, and the winds had become light and variable with, however, a distinct tendency towards the setting in of dry northerly winds, so that the area of rainfall began rapidly to contract, and by the close of the month the greater part of the reporting area was quite rainless. The general meteorological conditions as to pressure, wind directions, and velocities, area of rainfall, &c., on the last day or two of September, and at the commencement of October, were more like those of the middle of October, and in fact it would probably be true to say that the meteorological conditions which then obtained in the setting in of dry north-westerly and northerly winds, the absence of rainfall, &c., showed that the season was ten days or a fortnight earlier than usual.

It has been before mentioned that the monsoon winds were blowing fairly strongly over the Province for the first two weeks, but that from the middle to the end of the month the wind velocities had gradually diminished, till towards its close a very feeble current was setting in or drifting over Bengal. The rapid diminution of the wind velocities at the various reporting stations towards the end of the month is clearly shown in the table below, where the wind velocities at fourteen Bengal stations for each of the four weeks of the month are given. The figures do, it is true, show a rapid diminution in the velocity of the monsoon current, but in all probability the depth or volume of the current has diminished during the past month even more rapidly than the wind velocity. Of this factor of course no actual measurements can be made, but judging the depth or volume of the current during the last two weeks, by the average rainfall in the Province, the monsoon current must have decreased in volume with very great rapidity indeed.

Table of daily wind velocity (the numbers representing the wind motion in miles per day).

Station.	Average for week ending September 7th.	Average for week ending September 14th.	Average for week ending September 21st.	Average for week ending September 28th.
False Point	199	240	192	140
Cuttack	58	62	37	27
Saugor Island	172	250	233	151
Calcutta	151	106	86	62
Burdwan	96	86	76	69
Berhampore	136	83	90	78
Jessore	137	117	96	51
Chittagong	86	158	79	99
Dacca	89	113	62	62
Purneah	41	32	24	21
Durbhangha	144	117	62	55
Gya	62	48	24	28
Patna	158	141	55	64
Hazaribagh	202	171	96	93

Rainfall summary of the month.—It has just been noticed that the monsoon current blowing over Bengal during the past month has been distinctly weaker than the average, and as is always the case with a weak monsoon, not only is the rainfall on the whole below the normal, but the distribution has been distinctly irregular. The main features of the distribution are of course to a considerable extent similar to the normal, that is, the lines of greatest rainfall are those nearly parallel to the ranges of hills and to the sea area. Thus in the actual rainfall distribution during September, a line, including the areas which have received a rainfall in excess of 20 inches, runs to a certain extent parallel to the Darjeeling hills, and includes the districts of Cooch Behar and the Dooars. A line, including the areas which have received more than 15 inches and less than 20 inches, starts from Cox's Bazar, and includes Chittagong, Noakhally, and Chandpore. The line of 10-inch rainfall starts from Saugor Island, runs nearly parallel to the Sunderbans, and turns north in East Bengal, and runs along the foot of the Tipperah Hills, while a second line of 10-inch rainfall runs through North Bengal to a great extent parallel to the Nepal and Sikkim ranges. A third area, which has received more than 10 inches of rain, is in South Orissa. The area which has received between 10 and 5 inches of rain, includes almost the whole of Chutia Nagpur, and a certain part of South-West and East Bengal, but the greater part of South-West, East and North Bengal, and almost the whole of Behar, has received a rainfall of less than 5 inches. The inequalities of the distribution are shown by the fact that, within the areas of equal rainfall above-mentioned, there are patches of excess and of deficient rainfall. Thus the greater part of the Hazaribagh district has received a rainfall of over 10 inches, the Sonthal Pergunnahs district has also received a rainfall in excess of the surrounding districts, and there is another area of excess rain at Begoosera. On the other hand Balasore, Contai, Ghattal, Jehanabad, Burdwan, Chooadangah, Kooshtea, Jhenida, Berhampore, Jungipore, Manickgunge, Kishoregunge, Atia, Jamalpore, Pubna, Bogra, Sherpore, Serajgunge, Nattore, Bhowanigunge, Durbhunga, Motihari, and Bettiah have received remarkably small amounts of rain during the past month.

When the actual rainfall for September is compared with the normal fall for that month, it will be found that by far the greater part of the Province has received a deficient amount,

though there are certain districts which have received an excess. The most prominent cases of excess falls are, first, the Julpigoree and Cooch Behar districts in North Bengal; and second, the Chittagong, Comilla, and part of the Noakhally districts in East Bengal; the greater part of Chutia Nagpur has also received more than the average rainfall, while there is a peculiar instance of an excess fall of two-and-a-half inches at Begoosera, which station is completely surrounded by districts where the rainfall has been markedly deficient. When the whole Province is considered generally, it will be seen that the western and extreme south-western districts have received a slight excess fall, while passing from the west to the east, and towards the northern districts, the rainfall first becomes almost normal, then slightly in defect, while finally the eastern and northern districts, with the one or two exceptions before-mentioned, are largely in defect. Thus some of the southern districts of South Behar, represented by Sasseram, Aurungabad, and Jehanabad, have received a rainfall slightly in excess; the greater part of Chutia Nagpur, excluding the eastern parts of Manbroom and Singbroom, has also received a slight excess fall, and the excess area extends as far as Raneegunge, while the rainfall in the western districts of Orissa, represented by Pooree, Banpur, and Cuttack, has been considerably in excess, the amount of the excess being about three inches. Running parallel to this area of excess rainfall, there is a tract of country which has received nearly a normal fall, the amounts varying from normal up to a defect of three inches. This area includes the districts represented by Buxar, Bhubooh, Gya, Nowadah, Behar, Jamui, Godda, and Jamtara in South Behar; Govindpore, Mahoudi Hills, and Chyebassa in Chutia Nagpur; Bishenpur and Maliara in South-West Bengal; and Jajpur, Kendrapara, and False Point in Orissa. Running nearly parallel to the last area there is another section of the Province where the rainfall varies from three to five inches in defect; this area is represented by the stations Sewan, Chupra, Arrah, Dinapore, Mozufferpore, Hajipore, Tajpore, Monghyr, Bhagulpore, and Pakour in Behar; Rampore Haut, Azimgunge, Meherpore, Kishnaghur, Hooghly, Midnapore, and Tumlook in South-West Bengal; and Chandbali in Orissa. To the west of this area the defect is generally in excess of five inches, except in quite the southern districts, which are close to the head of the Bay, where the defect is generally less than five inches. In this area of large excess, which includes fully half the reporting area, there are several districts where the defect is excessive, and thus Nattore, Jamalpore, Kishoregunge, and Dinhatta all report a deficiency of more than 10 inches during September.

The periods during the past month where rainfall was heaviest and most general were in Orissa from the 1st to the 10th, from the 16th to the 21st, and from the 25th to the 29th. In South-West Bengal the periods of general rainfall were from the 1st to the 12th, and from the 24th to the 29th. In East Bengal there were no very well pronounced and general breaks in the rains, except from about the 20th to the 23rd, but for a considerable part of the month rainfall has been very scanty. In North Bengal the heaviest falls occurred between the 14th and 24th. In North Behar rainfall was generally scanty, except between the 14th and 22nd, while in South Behar and Chutia Nagpur rainfall was general and heavy from the 3rd to the 6th, and from the 9th to the 19th. The rainfall distribution for the month may also be summarised by saying that during the first week Orissa and Chutia Nagpur received a fall in excess of the normal, while all other districts were considerably in defect; in the second week Chutia Nagpur only received a slight excess, while all the other divisions were moderately in defect. In the third week of the month North Bengal, North and South Behar, and Chutia Nagpur received a fall in excess of the normal, while Orissa, South-West and East Bengal were in defect, and in the last week, with the exception of East Bengal, all the divisions received less than the normal fall of rain.

The areas which have received rainfalls in excess and defect of the normal during the past month have already been pointed out, but it has been seen that the distribution has been markedly irregular, so that in some cases one portion of a meteorological division has received a fall larger than usual, while another portion has had a defective rainfall. It is, however, also desirable to summarise the rainfall of each meteorological division for the month, and this is done in the table given below. When the average rainfall of all the stations in each meteorological division is taken and compared with the normal, it is found that Chutia Nagpur is the only division which has received a fall slightly in excess of the normal, while all the other divisions are more or less largely in defect. Expressing the figures given in this table in percentages, the excess fall in Chutia Nagpur is only equal to 4 per cent. of the normal. Taking the whole area of Orissa into consideration, this division shows a defect of 21 per cent. from the normal, while East Bengal, North Bengal, and South Behar are in defect by amounts varying from 30 to 33 per cent. of the normal. South-West Bengal has only received 50 per cent. of the normal fall, while North Behar is no less than 55 per cent. in defect, or has received distinctly less than half the amount of rain it ought to have received in September. In the same table there are also summarised the number of rainy days during the month in each meteorological division. It is remarkable that, when these average figures are compared with the normals, even in Chutia Nagpur, which has received a slight excess fall, the number of rainy days has been distinctly smaller than usual. In fact the number of rainy days in every district has been smaller than the normal, but the defective numbers are, as a rule, not very large, and it is clear that the defect of rainy days is in much smaller proportion than the defect of rainfall. The normal number of rainy days for the whole Province (obtained by averaging the normal number of rainy days in the seven meteorological divisions) is equal to 13.96 during the month, while the average defect is equal to 1.23 days, or only a defect of about 9 per cent., while from the figures given previously, it may be seen that the average defect of rainfall over the whole Province, calculated

in the same way, has been equal to 31 per cent. It would therefore appear that the deficient rainfall during September has not only been due to a deficient number of rain showers, but to a very great extent also to the lightness of the rain showers themselves, and thus it would tend to prove the suggestion above put forward, that not only has the monsoon current during September been deficient in strength or velocity, but that it has also been very deficient in depth or volume.

The following table gives the summary of the rainfall data above alluded to, and also of the temperature data for each of the seven meteorological divisions of the Province :—

METEOROLOGICAL DISTRICT.	TEMPERATURE								RAINFALL.							
	Highest observed during month.				Lowest observed during month.				Average for month.				Of month.			
	Of highest day.	Of lowest day.	Of mean for each day.	Average mean of month above or below normal mean of month.	Of highest day.	Of lowest day.	Of mean for each day.	Average.	Normal average.	Variation.	Average number in month.	Normal average number.	Variation.	Average.	Normal average.	
Orissa	94.4	72.0	85.9	77.5	81.7	-0.6	8.28	10.51	-2.23	14.0	14.9	-0.9	53.34	45.65		
South-West Bengal	97.6	74.2	88.7	77.8	83.3	+0.1	4.51	9.01	-4.50	12.4	14.3	-1.9	41.35	47.11		
East Bengal	92.8	73.0	85.0	77.5	81.2	-1.0	8.77	12.53	-3.75	15.7	16.7	-1.0	63.55	70.33		
North Bengal	93.6	72.1	88.8	76.5	82.7	-1.0	9.50	13.99	-4.49	13.2	14.2	-1.0	54.47	67.38		
North Behar	99.4	72.4	89.1	78.2	83.7	+0.4	4.45	9.88	-5.43	8.9	11.1	-2.2	40.15	43.58		
South Behar	96.7	68.3	90.4	77.4	83.9	-0.5	5.01	7.49	-2.48	10.7	11.6	-0.9	36.69	39.04		
Chutia Nagpur	89.5	62.2	84.6	71.8	78.2	+0.4	8.45	8.14	+0.31	14.2	14.0	-0.7	43.48	44.66		

METEOROLOGICAL OFFICE, BENGAL,
The 19th October 1883.

ALEXANDER PEDLER, F.C.S.,
Offg. Meteorological Reporter to the Govt. of Bengal.

Results of the Thermometrical Observations taken at the Meteorological Office,
Chowringhee, from 14th to 20th October 1883.

MONTH.	Date.	TEMPERATURE.				HYGROMETRY.					Rain.
		Mean.	Maximum.	Range.	Minimum.	Mean wet bulb.	Vapour tension.	Dew point.	Humidity.		
1883.		o	o	o	o	o	Inches.	o	%	Inches.	
October	14th	80.7	88.8	14.0	74.8	78.2	.933	77.2	.89	Nil	
"	15th	81.8	89.0	12.2	76.8	77.4	.881	75.4	.81	"	
"	16th	82.2	90.5	15.3	75.2	77.7	.889	75.6	.81	"	
"	17th	82.1	91.3	15.0	76.3	78.2	.900	76.0	.79	"	
"	18th	83.1	90.9	14.1	76.8	79.4	.955	77.8	.84	"	
"	19th	82.9	92.0	15.2	76.8	77.0	.849	74.3	.75	"	
"	20th	82.4	90.8	13.8	77.0	77.2	.865	74.9	.78	"	

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The mean temperature of the seven days 82.3

The extreme variation of temperature during the seven days 17.2

The maximum temperature during the seven days 92.0

% 81

The mean relative humidity during the seven days 81

Inches.

The total fall of rain from 14th to 20th October 1883 Nil.

The mean temperature and humidity are obtained by applying to the mean of the 10h, 16h, and minimum readings a correction dependent on the range, and derived from the hourly observations at the Surveyor-General's Office, Chowringhee, in past years.

METEOROLOGICAL OFFICE, INDIA,
The 22nd October 1883.

ALEXANDER PEDLER,
For Meteorological Reporter to the Govt. of India.

Results of the Meteorological Observations taken at the Alipore Observatory from 14th to 20th October 1883.

Month,	Date,	Maximum in sun.	Number of hours of bright sunshine.	Mean pressure barometer at 32° Fahr.	TEMPERATURE.			HYGROMETRY.			WIND.			Miles recorded	Rain.	WEATHER.
					Mean	Maximum.	Range.	Mean wet bulb.	Vapour tension.	Dew point	Humidity	Prevailing direction				
1883.																
Oct.	14th	153.2	9.5	29.937	80.9	87.6	12.4	75.2	77.4	0.892	76.8	86	SSW and variable...	42	Nil.	Partially cloudy, o.
"	15th	152.0	10.8	29.948	81.6	88.6	12.3	76.2	77.4	0.886	75.6	83	SSW, NW, and variable.	45	"	Partially cloudy.
"	16th	151.4	11.2	29.933	81.0	88.5	14.3	74.2	77.0	0.875	75.2	83	SSW and calm ...	69	"	Chiefly clear, =, p.
"	17th	145.0	11.3	29.911	81.6	88.5	13.0	75.5	77.1	0.873	75.1	82	SSW and SW by S...	108	"	Clear, p.
"	18th	146.5	10.8	29.896	81.1	88.7	12.5	76.2	77.1	0.880	75.4	83	SW by S, SW, calm and variable.	98	0.08	Partially cloudy o, g, p, d.
"	19th	147.7	10.0	29.916	81.5	89.2	13.5	75.7	76.7	0.853	74.4	79	SW, WSW, S and calm.	56	Nil	Partially cloudy, =, p.
"	20th	147.5	10.0	29.941	81.9	88.4	12.6	75.8	75.0	0.866	72.0	73	S and W ...	79	"	Partially cloudy, =, p.

The mean pressure of the seven days ... Inches.

The average pressure of the corresponding period for 24 years, S. G.'s Office ... 29.926

The total number of hours of bright sunshine of the seven days ... Hours.

The mean temperature of the seven days ... 73.6

The average temperature of the corresponding period for 24 years, S. G.'s Office ... 81.3

The extreme variation of temperature during the seven days ... 82.0

The maximum temperature during the seven days ... 15.0

The minimum temperature during the seven days ... 89.2

The highest velocity of the wind in one hour during the seven days ... Miles.

The highest pressure of the wind on one square foot during the seven days ... 11 lbs.

The mean relative humidity during the seven days ... %.

The average relative humidity of the corresponding period for 24 years, S. G.'s Office ... 81

The total fall of rain from 14th to 20th October 1883 ... 77 inches.

The average fall of the corresponding period for 24 years, S. G.'s Office ... 0.08

The total fall from 1st January to 20th October 1883 ... 0.85

The average fall of the corresponding period for 24 years, S. G.'s Office ... 50.04

The mean pressure, temperature, &c., are deduced from the traces of the Barograph and Thermograph, and from observations made at 6h, 10h, 14h, and 22h.

The maximum and minimum temperatures are obtained from self-registering thermometers. All the thermometers are verified, and the readings have been corrected to a standard constructed and verified at the Kew Observatory. They are exposed under a thatched shed open at the sides, and are suspended four feet above the ground.

The barometer readings are corrected approximately to those of the standard Newman's No 86 formerly at the Surveyor-General's Office.

The hygrometric elements are obtained from Tables III, IV and V of the official tables computed in the Meteorological office, and based on Regnault's modifications of August's formula.

The direction of the movement of the wind are taken from the trace of a Beckley's anemograph.

The mouth of the rain-gauge is one foot above the ground.

o overcast, g gloomy, p passing temporary showers, = fog, d dew.

ALEXANDER PEDLER,

METEOROLOGICAL OFFICE, INDIA,

The 22nd October 1883.

For Meteorological Reporter to the Government of India.

N.B.—In the weekly report from 7th to 13th October 1883, read 1.38 inches, for 18.8 ins. as the average rainfall of 24 years, S. G. office, for the period from 7th to 13th October.

Meteorological Report of the Province of Bengal

Meteoro	LOGICAL DIVISION.	DISTRICT.	Representative station.	STATION OBSERVATIONS.													
				AIR PRESSURE.			WIND.			TEMPERATURE.							
				Mean barometric height, 10 A.M.	Mean reduced to sea-level.	Variation from mean.	Prevailing direction.	Mean wind velocity.	Highest during week.	Lowest during week.	Mean maximum temperature.	Mean minimum temperature of week.	Mean daily temperature of week.	Variation from normal of week.	Mean 10 A.M. temperature.	Average humidity at 10 A.M.	Average cloud amount at 10 A.M. for week.
ORISSA.		Pooree	Gopalpore	29°556	30°006	—	NNW	—	86°6	75°8	84°0	77°9	81°0	—	82°4	81	4°9
			False Point	29°997	30°019	+·096	W & V	110	90°0	72°1	87°8	74°5	81°2	+·0·5	84°7	75	5°6
		Cuttack	Cuttack	29°926	30°008	+·087	Calm	27	93°0	74°8	91°0	75°9	83°5	+1°6	85°6	71	4°3
		Balasore	Balasore	29°955	30°015	—	V	51	92°0	72°8	89°5	74°9	82°2	—	84°1	72	3°8
		South-West Midnapore	Saugor Island	29°983	30°009	+·083	SW	144	89°2	75°0	87°9	77°7	82°8	+1°6	83°9	79	6°9
		South 24-Pergunnahs															
		Midnapore	Midnapore	29°872	30°007	—	NW	—	88°5	72°2	86°6	73°2	80°0	—	80°4	61	2°7
		24-Pergunnahs															
		Howrah	Calcutta	29°984	30°005	+·097	WSW	69	88°5	74°2	87°7	75°8	81°7	+1°1	84°6	75	4°1
		Hooghly															
		Burdwan	Burdwan	29°905	30°006	+·068	SW	45	92°6	74°0	90°8	75°5	83°2	+1°7	86°0	62	3°1
		Bankura															
		Beerbhoom	Ranigunge	29°608	—	—	NW	62	96°0	72°9	92°7	74°1	83°4	—	85°9	64	1°9
		West Burdwan															
		Moorsheadabad	Berhampore	29°935	30°002	+·081	SSW & C	49°9	92°7	70°0	90°6	74°4	82°5	+1°1	86°4	74	2°7
		Nuddea															
		Jessore	Jessore	29°974	30°007	+·086	C & W	31	92°3	72°9	91°0	74°6	82°8	+1°1	86°0	73	3°2
		Khpolna															
		Chittagong	Chittagong	29°934	30°025	+·089	C	41	88°1	73°0	86°0	74°5	80°3	+0·1	83°3	83	2°7
		Chittagong Hill Tracts	Demagri														
		Backergunge	Barrisal	29°946	—	—	N & V	327°3	87°1	72°4	85°7	75°0	80°5	—	84°4	66	2°6
		Noakholly	Noakholly	29°924	29°963	—	N & C	19°5	89°8	73°2	87°0	74°4	81°2	—	84°6	73	4°7
		Furreedpore	Furreedpore			Rejected.											
		Dacca	Dacca	29°971	30°012	+·090	S & W	58	90°3	74°6	88°6	76°1	82°4	+0·9	82°6	75	3°1
		Commillah	Commillah	29°952	29°987	—	ESE	9	86°1	73°8	74°2	75°1	70°5	—	84°3	78	5°4
		Mymensingh	Mymensingh	29°829	—	—	E	93	90°8	71°1	87°8	74°2	81°4	—	82°9	75	6°4
		Bogra and Pubna	Sersajunge	29°955	—	—	V	65	90°4	72°2	87°8	73°9	80°9	—	83°2	60	3°4
		Rajshahye	Rampore Beauleah	29°943	30°018	—	SE & SW	65	91°6	71°7	89°2	74°1	81°6	—	84°0	77	4°9
		Dinagepore	Dinagepore	29°851	30°010	—	NE & S	41	91°6	69°1	89°2	72°5	80°9	—	83°3	66	4°3
		Rungpore	Rungpore	29°873	29°990	—	NE	72	91°8	68°6	89°9	73°1	81°5	—	83°0	74	4°4
		Julpigoree	Julpigoree	29°712	30°003	—	E	72	89°0	65°1	87°6	70°1	78°9	—	81°4	74	3°3
		Cooch Behar															
		Darjeeling Hill Districts	Darjeeling	23°105	—	—	NW & V	99	64°1	46°4	61°9	49°6	53°7	—	57°0	86	5°1
		Purneah	Purneah	29°877	29°997	+·091	C	7	91°7	65°9	89°7	70°6	80°2	+0·5	84°6	68	5°1
		North Bhagulpore															
		Mozufferpore	Durbhunga	29°840	30°010	+·133	V	51	90°9	69°5	89°0	73°5	81°3	+1°9	82°6	72	3°1
		Durbhunga															
		Chumparun	Motihari	29°763	—	—	E	103	87°1	62°8	83°3	68°7	76°0	—	84°1	57	5°
		Sarun	Chupra	29°794	—	—	Calm	7	93°0	67°0	91°4	69°3	81°1	—	83°1	97	4°
			Dehree	29°649	30°006	—	SSW	—	88°4	70°0	84°6	72°3	78°5	—	88°0	70	3°
		Shahabad	Buxar	29°761	30°004	—	NW	72	97°9	66°8	93°8	72°2	83°9	—	82°6	43	3°
			Arrah	29°773	29°969	—	SE & SW	65	93°4	66°8	92°1	71°5	81°8	—	85°1	60	3°
		Gya	Gya	29°598	29°976	+·031	Calm	31	95°7	56°2	94°6	63°0	79°3	+0·4	80°2	52	6°
		Patna	Bankipore	29°816	30°001	+·008	V	51	93°9	69°2	92°3	72°8	82°6	+2·3	85°2	58	5°
		South Bhagulpore	Bhagulpore	29°821	29°983	—	SSW	55	93°4	66°0	90°9	70°6	80°8	—	86°0	62	1°
		Monghyr															
		Sonthal Pergunnahs	Doomka	29°484	—	—	SW	—	62°1	67°9	90°2	71°5	80°8	—	84°6	71	0
		Hazaribagh	Hazaribagh	27°990	29°906	+·082	V	99	88°5	65°8	87°8	68°9	78°4	+3·5	82°1	42	1°
		Lohardugga	Ranches	27°885	30°000	—	—	—	88°3	64°4	86°9	67°7	77°4	—	82°7	45	1°
		Manbhoom															
		Singhbhoom	Chiyachassa	29°223	—	—	V	—	—	69°8	—	72°0	—	—	84°0	64	1°

Explanation of Summary.—The normal means of air pressure and temperature are the arithmetical averages or means of the readings during the month. The humidity of the atmosphere is expressed as a percentage, saturated air being represented by 100. A clear sky is denoted by 0 and an overcast sky by 100. The normal means are the numerical means or averages of the rainfall in that district determined from the returns sent in by the sub-divisional stations in the district sending in returns divided by the number of stations. The total rainfall at the sub-divisional stations in the district sending in returns divided by the number of stations.

for the week ending Friday, the 19th October 1883.

Rainfall of week at observing stations.	DISTRICT OBSERVATIONS.											Representative station.	DISTRICT.	METEOROLOGICAL DIVISION.			
	RAINFALL.																
	Of week.	Since 1st of month.			Since 15th May.			Normal number of rainy days.	Normal number of rainy days.								
Mean for district.	Normal mean.	Mean for district.	Normal mean.	Variation.	Mean for district.	Normal mean.	Variation.	Average number of rainy days.	Normal number of rainy days.	ORISSA.	SOUTH-WEST BENGAL.	EAST BENGAL.	NORTH BENGAL.				
3.28										Gopalpore	...	False Point	...	Pooree			
1.83	1.65	2.10	2.09	5.44	-3.35	58.97	50.82	+8.15	2.2	2.5	...	...	...	...
0.48	0.49	1.36	0.49	4.19	-3.70	56.74	48.15	+8.59	2.0	1.8	Cuttack	...	Cuttack	...			
1.52	0.78	1.74	0.83	4.65	-2.82	49.93	51.52	-1.59	1.2	2.0	Balasore	...	Balasore	...			
0.05	0.69	2.77	1.15	5.35	-4.20	50.52	58.45	-7.93	1.0	2.8	Saugor Island	...	South-West Midnapore	...			
0.32	0.43	1.68	0.80	3.58	-2.78	40.08	49.15	-9.07	1.0	1.3	Midnapore	...	South 24-Pergunnahs	...			
0.55	0.88	1.57	0.95	3.54	-2.59	43.41	49.78	-6.37	1.5	2.0	Calcutta	...	24-Pergunnahs	...			
0.40	0.56	1.57	1.02	3.34	-2.32	47.23	45.02	+2.21	2.0	1.6	Burdwan	...	Burdwan	...			
0.02	0.41	1.68	0.50	3.68	-3.18	50.54	50.51	+0.03	1.0	2.2	Ranigunge	...	Bankura	...			
0.92	0.34	2.37	0.38	4.38	-4.00	38.34	50.09	-11.75	1.1	2.1	Berhampore	...	Beerbhoom	...			
0.79	1.51	0.80	3.39	-2.59	33.90	48.74	-14.84	1.3	1.8	West Burdwan	...	West Burdwan	...				
1.27	0.48	1.67	0.55	3.35	-2.80	39.85	52.01	-12.16	1.6	2.0	Jessore	...	Moorshedabad	...			
0.85	0.01	1.35	3.96	5.13	-1.17	124.63	122.63	+2.00	0.5	2.7	Chittagong	...	Nuddea	...			
0.02	2.36	2.06	7.74	-5.68	70.08	70.37	-9.29	1.0	3.9	Demagri	...	Chittagong Hill Tracts	...				
0.46	0.36	1.88	3.41	4.52	-1.11	56.21	76.18	-19.97	1.0	2.7	Barrisal	...	Backergunge	...			
1.15		2.01		5.76			106.82			Noakhally	...	Noakhally	...				
0.20	1.93	1.18	3.95	-2.77	40.43	56.06	-15.63	1.0	2.3	Furreedpore	...	Furreedpore	...				
0.20	0.61	1.65	3.13	3.81	-0.68	42.42	60.68	-18.26	1.7	2.3	Dacca	...	Dacca	...			
0.14		1.78		5.06			70.29			Commillah	...	Commillah	...				
0.68	0.85	1.38	1.54	4.68	-3.14	43.39	68.17	-24.78	2.0	2.2	Mymensingh	...	Mymensingh	...			
0.20	0.35	2.22	0.37	4.73	-4.36	34.69	57.24	-22.55	1.5	1.8	Serajgunge	...	Bogra and Pubna	...			
0.62	0.57	1.70	0.73	3.90	-3.17	28.53	63.51	-24.98	1.7	1.8	Rampore Beauleah	...	Rajshahye	...			
Nil	Nil	1.50	0.01	4.01	-4.00	39.07	59.51	-20.44	—	2.0	Dinagepore	...	Dinagepore	...			
Nil	0.07	1.92	0.07	4.14	-4.07	51.24	76.83	-25.59	0.3	1.6	Rungpore	...	Rungpore	...			
Nil	Nil	2.16	0.94	6.32	-5.38	113.44	112.21	+1.23	—	2.3	Julpigoree	...	Julpigoree	...			
Nil	Nil	1.84	1.94	6.13	-4.19	139.53	148.12	-8.59	—	1.6	Darjeeling	...	Darjeeling Hill Districts	...			
Nil	Nil	0.82	Nil	2.76	-2.76	51.19	57.24	-6.05	—	1.2	Purneah	...	Purneah	...			
Nil	Nil	0.36	Nil	2.61	-2.61	39.81	41.51	-1.70	—	0.9	Durbhunga	...	Mozafferpore	...			
Nil	Nil	0.18	0.01	5.00	-4.99	31.45	45.12	-13.67	—	0.3	Motihari	...	Durbhunga	...			
Nil	Nil	0.36	Nil	2.84	-2.84	34.58	40.48	-5.90	—	0.9	Chupra	...	Chupra	...			
Nil	—	—	—	—	—	—	—	—	—	—	Dehree	...	Dehree	...			
Nil	Nil	0.39	Nil	2.36	-2.36	29.35	38.38	-9.03	—	0.8	Buxar	...	Shahabad	...			
Nil	—	—	—	—	—	—	—	—	—	—	Arrah	...	Arrah	...			
Nil	Nil	0.40	Nil	2.56	-2.56	37.01	39.50	-2.49	—	0.9	Gya	...	Gya	...			
Nil	Nil	0.50	Nil	2.54	-2.54	40.88	38.73	+2.15	—	1.1	Bankipore	...	Patna	...			
Nil	0.06	0.52	0.06	2.21	-2.15	36.77	40.78	-4.01	0.4	1.1	Bhagulpore	...	South Bhagulpore	...			
Nil	0.06	1.15	0.06	2.98	-2.92	38.91	48.75	-9.84	0.3	1.7	Doomka	...	Monghyr	...			
Nil	Nil	0.81	Nil	2.49	-2.49	40.30	47.07	-6.77	—	1.8	Hazaribagh	...	Sonthal Pergunnahs	...			
Nil	0.22	0.62	0.22	2.52	-2.30	44.56	45.98	-1.42	0.2	1.3	Ranchoo	...	Lohardugga	...			
0.37	0.62	0.69	0.62	1.84	-1.22	50.85	49.88	+0.97	1.0	1.9	Chyebassa	...	Manbhum	...			
											CHUTIA NAG.-PURI.		Singbhum	...			

period for the past 1 year. The variations are *negative* when the mean for the week is less than the corresponding normal mean, and *positive* when greater by 10. The number denoting cloud amount represent the part of the sky covered, the whole sky being denoted by 10. Under the head "district observational stations for the period in question during the past 12 years. The "means for the district" are the numerical averages of the rainfall returns received day is one on which at least an hundredth of an inch fell.

Statement of Rainfall in Bengal for the week ending Friday (6 p.m.), the 19th of October 1883.

Meteorological division.	District.	Station.	RAINFALL.							Total.		Average total rainfall from 1st to 19th October.	Total rainfall from 15th May.	Average rainfall from 15th May to date.	
			Saturday, 13th October.	Sunday, 14th October.	Monday, 15th October.	Tuesday, 16th October.	Wednesday, 17th October.	Thursday, 18th October.	Friday, 19th October.	Number of rainy days.	Rainfall of week.				
ORISSA	Pooree	Pooree	2'00	1'04	.....	.....	.....	0'07	.....	3	3'11	3'45	5'19	54'38	44'73
		Khurdah	0'41	0'73	.....	.....	.....	.....	.....	2	1'14	4'96	52'91	52'91	—
		Banpur	0'40	.....	0'08	.....	0'15	.....	.....	2	0'03	0'99	3'84	56'27	45'83
	Cuttack	False Point	1'83	.....	.....	.....	.....	0'06	.....	2	1'89	1'95	7'79	65'32	59'78
		Hookitola	.....	.....	.....	.....	.....	.....	.....	—	—	—	—	—	—
		Jagatsingapore	0'26	0'07	.....	.....	.....	.....	.....	3	0'41	0'41	5'02	45'88	—
SOUTH-WEST BENGAL	Cuttack	Banki	0'32	0'04	0'05	.....	.....	.....	.....	1	0'30	3'48	61'25	61'01	50'75
		Cuttack	0'50	.....	.....	.....	.....	.....	.....	1	0'50	4'05	49'48	49'48	49'48
		Kendrapara	0'20	.....	0'26	.....	.....	.....	.....	2	0'56	0'56	5'21	54'96	50'49
		Jajpore	0'30	.....	0'28	.....	.....	.....	.....	1	1'08	1'08	5'83	62'34	50'31
	Balasore	Chandbali	0'66	.....	.....	.....	.....	.....	.....	1	0'66	0'66	5'64	49'70	49'70
		Bhudruck	0'22	0'24	.....	.....	.....	.....	.....	2	0'46	0'46	3'30	49'40	48'83
		Sorah	0'20	.....	.....	.....	.....	.....	.....	1	0'20	0'35	4'33	40'98	50'31
		Balasore	1'08	.....	.....	.....	.....	.....	.....	1	1'08	1'08	5'83	62'34	53'57
	Midnapore	Jelesore	.....	1'48	.....	.....	.....	.....	.....	1	1'48	1'48	5'77	52'39	52'39
		Baripodah	.....	.....	.....	.....	.....	.....	.....	—	—	—	5'52	54'14	—
		Contai	1'31	.....	.....	.....	.....	.....	.....	1	1'31	1'89	5'15	52'18	57'73
		Saug-r Island	0'05	.....	.....	.....	.....	.....	.....	1	0'05	0'57	6'79	50'10	61'17
24 Parganas	Diamond Harbour.	Timlook	0'40	.....	.....	.....	.....	.....	.....	1	0'40	1'59	3'17	43'03	47'91
		Midnapore	0'45	.....	.....	.....	.....	.....	.....	1	0'45	0'45	3'41	38'49	45'43
		Ghatal	0'44	.....	.....	.....	.....	.....	.....	1	0'44	0'44	4'15	36'75	54'13
		Diamond Harbour.	0'70	.....	.....	.....	.....	.....	.....	1	0'70	0'07	4'09	42'98	56'45
	Alipore Jail	Alipore Jail	0'57	.....	.....	.....	0'06	.....	.....	2	0'63	0'77	3'18	39'71	52'88
		Barrackpore	.....	.....	.....	.....	.....	.....	.....	—	Nil	Nil	2'86	38'80	47'14
		Dum-Dum	0'83	.....	.....	.....	.....	0'34	.....	1	1'17	1'17	3'48	40'39	40'37
		Barasat	0'45	.....	.....	.....	0'61	.....	.....	2	1'06	1'51	3'26	33'72	45'23
	Howrah	Buseerhat	0'24	.....	.....	.....	.....	.....	.....	1	0'24	0'24	3'71	53'14	51'25
		Howrah	0'45	.....	.....	.....	0'20	.....	.....	1	0'45	0'47	3'29	37'31	49'74
		Moheska (Gobberiah.)	1'71	.....	.....	0'20	0'20	1'91	.....	2	1'91	1'91	3'70	47'92	51'46
		Hooghly	0'14	.....	.....	0'03	0'03	2'63	.....	1	0'14	0'14	3'71	40'50	43'07
Burdwan	Serampore	Hooghly	0'08	.....	.....	0'03	0'03	2'63	3	2'74	2'83	3'80	46'81	45'76	—
		Jehamabad	0'50	.....	.....	.....	.....	.....	1	0'50	0'50	4'39	47'83	53'91	—
		Culna	0'22	.....	0'88	.....	.....	.....	.....	2	1'10	2'20	3'19	45'75	42'45
		Burdwan	0'35	0'62	.....	0'88	.....	.....	.....	2	0'40	0'70	3'49	53'25	45'81
	Bankoora	Cutwa	0'05	0'12	.....	0'82	.....	.....	.....	2	0'17	0'17	3'30	41'69	40'84
		Rameegunge	0'02	.....	.....	0'82	.....	.....	.....	1	0'02	0'12	3'01	63'69	44'22
		Bankoora	.....	0'01	.....	.....	.....	.....	.....	1	0'01	0'01	3'44	45'61	49'13
		Bishenpore	0'14	.....	.....	0'90	.....	.....	.....	1	0'14	0'14	3'08	45'25	49'24
	Beerhoom	Malwara	0'11	1'70	.....	0'90	.....	.....	.....	2	1'81	1'81	5'16	43'43	48'70
		Khatra	.....	.....	0'90	.....	.....	.....	1	0'90	2'40	5'27	49'43	56'33	—
		Rh. Soory	0'01	.....	.....	0'01	.....	.....	1	0'01	0'01	2'72	61'63	51'23	51'23
		Hetampore	.....	.....	.....	0'01	.....	.....	—	—	Nil	Nil	3'07	45'38	54'53
Nuddea	Bongong	Ramnaghata	0'82	.....	.....	0'25	0'20	2	0'45	0'45	3'80	38'49	50'65	—	—
		Kishnaghata	2'26	.....	.....	.....	.....	1	0'26	0'62	3'03	45'04	44'91	—	—
		Chowdhunga	0'43	0'03	.....	.....	.....	1	2'23	2'23	3'83	24'04	45'70	—	—
		Meherpore	0'16	.....	.....	.....	.....	2	0'46	0'46	3'24	24'33	51'13	—	—
	Khoolma	Koositea	0'78	.....	.....	.....	.....	1	0'16	0'16	2'77	32'31	46'71	—	—
		Satkira	0'56	.....	.....	0'16	0'20	3	0'92	0'92	3'46	56'12	51'10	51'10	51'10
		Bagirhat	.....	.....	0'25	.....	.....	1	0'25	0'50	3'59	45'05	59'58	59'58	59'58
		Khoolma	0'06	0'31	1	0'06	0'13	3'20	38'98	53'30	—
Jessore	Narail	Narail	.....	.....	0'96	0'20	.....	—	—	Nil	Nil	2'55	33'12	46'00	—
		Jessore	0'11	.....	0'96	0'20	.....	3	1'27	1'27	2'96	37'80	51'65	—	—
		Jhenidah	0'03	.....	0'31	.....	.....	1	0'03	0'18	3'67	29'10	53'92	—	—
		Magoorah	0'51	.....	0'31	.....	.....	2	0'82	0'82	2'99	39'56	48'48	48'48	48'48
	Moorshedabad	Kandi	0'29	.....	0'47	.....	.....	1	0'29	0'55	3'73	42'80	50'81	—	—
		Rampore Haut	0'08	0'27	0'47	.....	.....	3	0'82	0'82	3'73	46'89	49'85	—	—
		Berhampore	0'22	.....	.....	0'47	.....	1	0'22	0'22	4'40	35'85	51'35	—	—
		Lalbagh	.....	.....	.....	0'47	.....	—	—	Nil	Nil	4'84	32'52	46'69	—
	Chittagong	Azimunge	0'03	.....	0'20	0'47	.....	1	0'03	0'03	5'23	39'06	50'88	—	—
		Jungipore	0'05	.....	0'20	0'47	.....	1	0'05	0'05	5'69	33'03	46'08	—	—
		Laigola	0'15	.....	0'20	0'47	.....	1	0'15	0'15	5'08	38'12	50'13	—	—
		Cox's Bazar	.....	.....	0'20	0'47	.....	—	—	Nil	3'03	5'43	141'94	126'97	118'31
EAST BENGAL	Chittagong Hill Tracts.	Chittagong	0'03	.....	0'20	0'47	.....	1	0'03	3'59	4'84				

Statement of Rainfall in Bengal for the week ending Friday (6 p.m.), the 19th of Oct. 1883—concluded.

Meteorological division.	District.	Station.	RAINFALL.							TOTAL.		Average total rainfall from 1st to 19th October.	Total rainfall since 15th May.	Average rainfall from 15th May to date.	
			Saturday, 13th October.	Sunday, 14th October.	Monday, 15th October.	Tuesday, 16th October.	Wednesday, 17th October.	Thursday, 18th October.	Friday, 19th October.	Number of rainy days.	Rainfall of week.				
NORTH BENGAL	Pubna	Pubna	0'54	.....	.....	0'60	0'38	0'02	.....	3	0'45	0'48	3'65	54'32
		Serajunge	.....	0'05	.....	.....	.....	.....	.....			3'77	41'23	52'08
	Bogra	Sherpore	0'20	.....	.....	0'18	0'03	0'11	.....	1	0'20	0'25	4'91	63'83
		Nowkhilla	.....	.....	.....	0'31	.....	.....	.....	3	0'32	0'42	6'28	58'12
		Bogra	.....	.....	.....	.....	.....	.....	.....	1	0'31	0'31	3'79	58'51
		Panchbibi	.....	.....	.....	.....	.....	.....	.....		Nil	5'19	31'29	66'83
	Rajshahye	Beauleah	1'02	0'06	0'02	.....	.....	.....	.....	3	1'10	1'41	4'21	54'28
		Nattore	.....	0'54	.....	.....	.....	.....	.....	1	0'54	0'54	4'30	25'31
	Maldah	Maldah	.....	.....	0'08	.....	.....	.....	.....	1	0'08	10'08	3'19	32'17
		.....	.....	.....	.....	.....	.....	.....	.....					40'85
	Dinagepore	Mohadebpore	.....	.....	.....	.....	.....	.....	.....		Nil	Nil	4'69	35'15
		Churamon	.....	.....	.....	.....	.....	.....	.....		Nil	Nil	3'80	35'95
		Raigunge	.....	.....	.....	.....	.....	.....	.....		Nil	Nil	4'33	53'62
		Dinagepore	.....	.....	.....	.....	.....	.....	.....		Nil	0'03	3'82	44'79
		Baloorhat	.....	.....	0'10	.....	.....	.....	.....	1	0'10	0'10	—	61'83
	Rungpore	Bhawanigunge (Gyabanda)	.....	.....	.....	.....	0'21	.....	.....	1	0'21	0'21	5'11	36'65
		Rungpore	.....	.....	.....	.....	.....	.....	.....		Nil	Nil	4'67	45'35
		Kurigram	.....	.....	.....	.....	.....	.....	.....		Nil	Nil	5'29	74'74
		Bagdogra (Nilphamari.)	.....	.....	.....	.....	.....	.....	.....		Nil	Nil	5'53	77'62
	Julpigoree	Julpigoree	.....	.....	.....	.....	.....	.....	.....		Nil	0'86	3'63	135'32
		.....	.....	.....	.....	.....	.....	.....	.....					111'59
	Cooch Behar	Dinhatta	.....	.....	.....	.....	.....	.....	.....		Nil	Nil	8'02	68'32
		Cooch Behar	.....	.....	.....	.....	.....	.....	.....		Nil	0'20	4'46	121'12
		Mickligunge	.....	.....	.....	.....	.....	.....	.....		Nil	0'07	5'83	107'71
		Matabhanga	.....	.....	.....	.....	.....	.....	.....		Nil	3'61	9'73	134'68
	Darjeeling Hill.	Buxa	.....	.....	.....	.....	.....	.....	.....		Nil	4'60	8'40	181'01
		Silliguri	.....	.....	.....	.....	.....	.....	.....		Nil	0'15	—	193'73
		Darjeeling	.....	.....	.....	.....	.....	.....	.....		Nil	3'90	—	162'55
		Kalimpong	.....	.....	.....	.....	.....	.....	.....		Nil	0'48	—	79'24
NORTH BHAR	Purneah	Kissengunge	.....	.....	.....	.....	.....	.....	.....		Nil	Nil	2'44	59'75
		Arrareah	.....	.....	.....	.....	.....	.....	.....		Nil	Nil	2'90	62'75
		Purneah	.....	.....	.....	.....	.....	.....	.....		Nil	2'58	34'55	61'07
	North Bhagulpore.	Maddapore	.....	.....	.....	.....	.....	.....	.....		Nil	Nil	3'98	54'86
		Soopool	.....	.....	.....	.....	.....	.....	.....		Nil	Nil	1'99	44'91
	Durbhunga	Tajpore	.....	.....	.....	.....	.....	.....	.....		Nil	Nil	2'46	43'61
		Durbhunga	.....	.....	.....	.....	.....	.....	.....		Nil	Nil	2'38	39'98
		Madhubani	.....	.....	.....	.....	.....	.....	.....		Nil	Nil	2'22	42'11
	Mozufferpore	Sitanarhi	.....	.....	.....	.....	.....	.....	.....		Nil	Nil	2'15	33'30
		Mozufferpore	.....	.....	.....	.....	.....	.....	.....		Nil	Nil	2'30	46'63
		Hajipore	.....	.....	.....	.....	.....	.....	.....		Nil	Nil	4'12	33'75
	Chumparun	Motihari	.....	.....	.....	.....	.....	.....	.....		Nil	0'03	3'51	34'25
		Bettiah	.....	.....	.....	.....	.....	.....	.....		Nil	3'43	32'57	41'55
	Sarun	Gopalgunge	.....	.....	.....	.....	.....	.....	.....		Nil	Nil	8'05	27'56
		Sewan	.....	.....	.....	.....	.....	.....	.....		Nil	Nil	8'08	32'62
		Chuprah	.....	.....	.....	.....	.....	.....	.....		Nil	Nil	2'58	41'73
SOUTH BHAR	Shahabad	Buxar	.....	.....	.....	.....	.....	.....	.....		Nil	Nil	2'21	33'67
		Dehree	.....	.....	.....	.....	.....	.....	.....		Nil	Nil	—	—
		Bhubooah	.....	.....	.....	.....	.....	.....	.....		Nil	Nil	2'34	26'70
		Sasseram	.....	.....	.....	.....	.....	.....	.....		Nil	Nil	2'71	40'11
		Arrah	.....	.....	.....	.....	.....	.....	.....		Nil	Nil	2'23	39'65
	Gya	Aurungabad	.....	.....	.....	.....	.....	.....	.....		Nil	Nil	2'60	31'24
		Gya	.....	.....	.....	.....	.....	.....	.....		Nil	Nil	1'80	40'58
		Nowadah	.....	.....	.....	.....	.....	.....	.....		Nil	Nil	1'88	39'62
		Jehanabad	.....	.....	.....	.....	.....	.....	.....		Nil	Nil	2'95	38'65
	Patna	Patna	.....	.....	.....	.....	.....	.....	.....		Nil	Nil	2'69	38'72
		Dinapore	.....	.....	.....	.....	.....	.....	.....		Nil	Nil	2'37	38'80
		Behar	.....	.....	.....	.....	.....	.....	.....		Nil	Nil	2'62	38'14
		Barrh	.....	.....	.....	.....	.....	.....	.....		Nil	Nil	2'48	38'09
	Monghyr	Begooersai	.....	.....	0'06	.....	.....	.....	.....		Nil	Nil	1'91	39'35
		Monchy	.....	0'24	.....	.....	.....	.....	.....		1	0'06	0'06	26'61
		Jamui	.....	.....	.....	.....	.....	.....	.....		1	0'24	0'24	44'71
		—	—	—	—	—	—	—	—		—	—	1'67	39'48	
	South Bhagulpore.	Bhagulpore	.....	.....	.....	.....	.....	.....	.....		Nil	Nil	2'60	38'42
		Banka	.....	.....	.....	.....	.....	.....	.....		Nil	Nil	2'50	31'40
	Sonthal Per-gunnahs.	Rajmehal	.....	.....	0'17	.....	.....	.....	.....		Nil	Nil	2'42	30'53
		Godda	.....	.....	0'17	.....	.....	.....	.....		1	0'17	0'17	2'48
		Pakour	.....	.....	.....	.....	.....	.....	.....		Nil	Nil	3'83	35'06
		Nya Doonka	.....	.....	.....	.....	.....	.....	.....		Nil	Nil	4'03	45'31
		Deoghar	.....	0'17	.....	.....	.....	.....	.....		1	0'17	0'17	52'70
		Jamia	.....	.....	.....	.....	.....	.....	.....		Nil	Nil	3'36	40'00
		—	—	—	—	—	—	—	—		—	—	1'88	47'72	
CHUTIA NAG-PUR.	Hazaribagh	Pachamba	.....	.....	0'62	.....	.....	.....	.....		Nil	1'66	2'47	38'96
		Hazaribagh	.....	.....	.....	.....	.....	.....	.....		Nil	Nil	2'34	40'30
		Semtagurh	.....	.....	.....	.....	.....	.....	.....		—	2'59	2'57	47'29
		Mahudi Hills	.....	.....	.....	.....	.....	.....	.....		—	—	2'67	49'72
	Lohardugga	Lohardugga	.....	.....	.....	.....	.....	.....	.....		Nil	Nil	2'32	55'55
		Ranchi	.....	.....	.....	.....	.....	.....	.....		Nil	Nil	1'96	31'24
		Palamow	.....	.....	.....	.....	.....	.....	.....		—	—	—	41'43
	Singbham	Chyebassa	0'62		1	0'62	0'62	1'84	50'85
		Manbham	0'87		1	0'87	0'87	2'67	57'18
		Purulia		—	Nil	3'90	34'26	47'03
		Gobindpore</td													

SUMMARY OF THE METEOROLOGICAL AND RAINFALL OBSERVATIONS TAKEN IN BENGAL FOR THE WEEK ENDING FRIDAY,
THE 19TH OF OCTOBER 1883.

IN the summary for the week ending the 12th instant, it was pointed out that, owing to the continuance of certain meteorological conditions, the weather had become at the close of that week rather unsettled over the Bay. This disturbed condition of the weather over the sea area, owing to the absence of some condition or conditions, of which nothing is known at the present time, instead of developing and concentrating into a well marked barometric depression or cyclonic storm, such as are common at the close of the rainy season, remained as a large diffused disturbance, in which apparently there were other smaller disturbances, or what might be called storm patches. One of the smaller disturbances passed into East Bengal on the 11th instant, while the main portion of the diffused disturbance gradually drifted in a westerly direction towards the Madras and South Orissa Coasts, which it reached at the commencement of the present week. The disturbance had no definite centre, but simply gave rise to bad weather, strong winds and heavy rain along the Madras and South Orissa Coasts. That the disturbance was somewhat powerful may be judged from the fact that a report dated 10 P. M. on the 13th instant, at Coconada gave the wind velocity at that station as 46 miles per hour, while on the 13th and 14th instant, the average fall of rain at the stations along the Madras Coast was nearly four inches. This large disturbance, reaching and drifting over the land, also affected the weather in Bengal very considerably, and on the 13th very general rain, and in many cases in fairly large quantity, fell over the whole of Orissa, South-West and East Bengal, while a few showers penetrated even as far as North Bengal. The rainfall, as might be expected, was generally heaviest in Orissa, and the southern districts of South-West Bengal. With the advance of this disturbance, southerly winds set in at most stations in South-West Bengal, Chutia Nagpur, East Bengal, and even at some stations in Behar, thus driving back the northerly winds which had prevailed in those districts for some time previously. These southerly winds of course gave a large increase in the humidity and cloud proportion over the area affected by them, but they never succeeded in thoroughly re-establishing themselves over the whole Province, and for the greater part of the remainder of the week there has been a struggle between these southerly winds and the northerly winds which still prevailed in the northern divisions, and as the result, winds over a considerable part of the Province have been generally rather variable. There has been in fact almost an oscillating movement for some days, for on one day the southerly winds might appear to be gaining an advantage, only, however, to be forced back still further by the northerly winds on the following day. During this meeting of wind currents there must of course have been a certain amount of ascensional movement produced, and as a consequence rain showers have been rather more numerous during this week than during the week ending October 12th, though they have been still small in number and on the whole light. Towards the close of the week under review, however, these southerly moist winds were being slowly but surely driven back by dry northerly winds, and thus weather was characterised by a decreasing humidity temperature and cloud proportion over the whole Province, while the rain showers were becoming lighter and less numerous in most districts though rain was afterwards received in Behar in moderate quantity.

Pressure was at the commencement of the week very considerably above the normal, the average excess over the whole Province being 0.12". On the 14th and 15th, pressure again increased, till on the latter date the excess ranged from 0.2" at Durbhanga to 0.1" at Gya. On the 16th, however, the re-action commenced, and continued on the 17th and 18th, while on the 19th the barometric changes were very small. The decrease during these three days did not, however, bring pressure quite back to the normal, and the week has therefore closed again with pressure distinctly above the average amount for the period. It will thus be seen that the mean pressure for the week must be above the normal; the average excess pressure over the whole Province is about 0.08", while the actual average excess at the various stations ranges from 0.13" at Durbhanga to 0.03" at Gya. Temperature also has in the majority of cases been above the normal of the period, for during the greater part of the week little rain has fallen, and the skies have been comparatively free from cloud. Taking the whole Province into consideration, the average temperature for the week has been from 1° to 2° above the normal, but while False Point, Chittagong, and Gya show temperatures very slightly below the normal, Hazaribagh, Bankipore, and Durbhanga report temperatures largely above the normal. Thus at Hazaribagh the average temperature for the week has been 3.5° above the normal, at Bankipore it has been 2.3° above the normal, and at Durbhanga 1.9° above the normal.

The following table gives the usual summary of the temperature and rainfall data for each of the seven meteorological divisions of the Province:—

METEOROLOGICAL DISTRICT.	TEMPERATURE.						RAINFALL.									
	Highest observed during week.	Lowest observed during week.	Average for week.			Average mean of week above or below normal mean week.	Of week.		Rainy days.		Since 1st of month.	Since May 15th.				
			Of highest of each day.	Of lowest of each day.	Of mean for each day.		Average.	Normal average.	Variation.	Average number in week.	Normal average number.					
Orissa	93.9	72.1	88.1	75.8	82.0	+0.6	1.01	1.73	-0.72	1.8	2.0	-0.2	1.15	4.74	54.32	50.35
South-West Bengal	96.0	70.0	89.6	75.0	82.3	+1.3	0.59	1.80	-1.21	1.3	2.0	-0.7	0.73	3.73	42.41	50.36
East Bengal	90.8	71.1	86.7	75.0	80.9	+0.4	0.42	1.88	-1.46	1.3	2.6	-1.3	2.44	4.9	63.20	75.98
North Bengal	91.8	65.1	88.8	72.7	80.8	—	0.20	1.94	-1.74	0.7	1.9	-1.2	0.44	4.83	55.24	73.35
North Behar	93.0	62.8	88.4	70.5	79.7	+1.2	Nil	0.47	-0.47	—	0.9	-0.9	Nil	3.13	41.15	46.97
South Behar	97.9	56.2	91.2	70.7	81.0	+1.0	0.03	0.64	-0.61	0.1	1.2	-1.1	0.03	2.56	32.80	41.87
Chutia Nagpur	88.8	64.4	87.4	68.3	77.9	+3.5	0.21	0.71	-0.50	0.3	1.6	-1.3	0.21	2.43	43.90	46.90

The rainfall for the week has again been particularly scanty. As has already been stated, it was only on one day, the 13th instant, that anything like general rain was received, and even in this day the rainfall only extended to Orissa, South-West and East Bengal. For the remainder of the week only isolated showers have been recorded, and these usually have not given more than one or two-tenths of an inch of rain. In the whole of North Behar not a single station has reported rain on any day in the week, and in South Behar four stations only received isolated showers on one day in the week, and the average amount of rain at each of these four stations was only 0.16 inch. On the other hand, in the same division, twenty stations were absolutely rainless. Next to South Behar, North Bengal has received a very deficient rainfall, and while sixteen reporting stations received absolutely no rain, ten stations reported rain showers, though usually on only one day, and then in very small quantity. Chutia Nagpur also has had a very deficient rainfall, and while two stations report rain, each on one day only, five stations report absolutely no rain during the week. In East and South-West Bengal and in Orissa almost all stations have received rain during the week, but the majority of them have only had one rainy day, and even then on the average the normal was not large.

In all the meteorological divisions therefore rainfall has been largely below the average, and as shown in the above table, and taking the whole Province into consideration, it has during the past week probably not received much more than about one-fifth of the normal fall. If the rainfall in these divisions be compared with the normal, it will be found that in Orissa the rainfall has been 41 per cent. in defect; South-West Bengal and Chutia Nagpur have received a fall only equal to about 30 per cent. of the average, while East Bengal was 77 per cent in defect. North Bengal also received only 10 per cent. of the normal fall, and South Behar only 5 per cent. of the normal fall. In the case of North Behar, it having received absolutely no rain during the past week, it cannot be expressed as a percentage of the normal. The explanation of the fact that Orissa has received the largest fall, while South-West Bengal stands next in order, has already been given. The number of rainy days in the Province has also been in all cases below the normal, and the defect is in almost all cases somewhat large. The only district in which the number of rainy days at all approaches the normal is East Bengal, the deficiency here being only one-tenth of the normal amount.

Taking up the divisions separately, it will be found that in Orissa it is the southern district of Pooree which has received the largest amount of rain, while the Cuttack and Balasore districts are even more largely in defect than the above numbers would show. In South-West Bengal the districts are fairly uniformly in defect, though Moorshedabad was more largely in defect than the average, while some parts of the 24-Pergunnahs, Hooghly and Howrah districts received almost a normal fall. In East Bengal the Chittagong, Furreedpore and Chittagong Hill Tracts divisions have been very largely in defect. In North Bengal the Dinagepore, Rungpore, Julpigoree, Cooch Behar, and Darjeeling districts have received almost absolutely no rain, and, as before stated, the whole of North Behar has been rainless. In South Behar only the Monghyr and Sonthal Pergunnahs districts have received very small quantities of rain, while all the other districts were perfectly rainless. In Chutia Nagpur the Singbhum and Manbhum districts have received light rain, while the Hazaribagh and Lohardugga districts have been rainless.

Saturday, 13th October—Pressure had risen rapidly in all districts, and was very high. It was largely above the normal, the average excess was about 0.12", though in Chutia Nagpur the excess was only 0.08", while at Durbhanga it was 0.16". Temperature had risen in East Bengal. It was almost stationary in Chutia Nagpur, Behar, North and South-West Bengal, while it was falling in Orissa. It was considerably below the normal in East Bengal, while it was above the normal in all other districts. Winds were southerly at most stations in East and South-West Bengal, and in Chutia Nagpur, and at many stations in Behar. North-easterly winds, however, still prevailed in Orissa and North Bengal. Wind

velocities had distinctly increased in the southern and eastern divisions, but remained small in Behar. Humidity continued to increase, except in Chutia Nagpur, where it was small. It was high in Orissa, East and North Bengal, and at some stations in North Behar and South-West Bengal. The sky was almost free from cloud in South Behar and in Chutia Nagpur. It was moderately clouded in North Behar and North Bengal, while at most stations in South-West and East Bengal, and in Orissa, the sky was almost completely overcast. Rain, light to moderate in amount, was general over the whole of Orissa, South-West and East Bengal. A few showers also fell in North Bengal, but the remainder of the Province was rainless. The following were the largest amounts reported to-day:—Kishnaghur 2.26 inches, Pooree 2 inches, False Point 1.83 inches, Mohesreka 1.71 inches, Naraingunge 1.6 inches, Contai 1.31 inches, Manickgunge 1.30 inches, Balesore 1.08 inches, and Beanteah 1.02 inches. The following stations received amounts between half and one inch:—Kendrapara, Chandbali, Diamond Harbour, Calcutta, Jehanabad, Ranaghat, Kooshtea, Satkhira, Magorah, Jungipore, Barrisal and Noakhally.

Sunday, 14th October.—Pressure continued to increase in all districts, though by somewhat irregular amounts. It was largely above the normal, and the excess pressure over the whole Province was nearly 0.14". The changes of temperature since the 13th were not large. Temperature was distinctly below the normal in Orissa. It was about equal to the normal in South-West and East Bengal, while at most stations in Behar it was above the normal. Winds were distinctly irregular in all divisions. Southerly winds were reported from some stations in all districts, but, except in South-West Bengal, northerly winds still showed a stronger influence than the southerly winds in all districts. In South-West Bengal almost all the stations reported south-easterly winds. Wind velocities were a little stronger than they had been lately, but they were still small. There was a considerable increase in both humidity and cloud at almost all stations. Cloud proportion was high in all divisions, except East Bengal. A fair number of showers fell in Orissa and a few only in South-West, East and North Bengal. One or two showers also fell in the southern districts of South Behar and Chutia Nagpur, but the larger part of the reporting area was quite rainless. The following were the only amounts worthy of record on this day:—Jellasore 1.48 inches, Pooree 1.04 inches, Purulia 0.87 inch, Dum-Dum 0.83 inch, Khurdah 0.73 inch, and Nattore 0.54 inch.

Monday, 15th October.—Pressure continued to increase in all districts, except North Bengal, where the barometer was falling at most stations. Pressure was comparatively low in North Bengal, but it was largely above the normal over the whole reporting area. The excess pressure ranged from 0.20" at Durbhanga to 0.10" at Gya. Temperature had risen in Orissa and at many stations in North Bengal and North Behar; elsewhere the changes were rather variable. Temperature was considerably above the normal in all districts. The excess in Orissa, South-West and East Bengal was about 1°, in South Behar it was about 2°, while in North Behar and Chutia Nagpur it was equal to about 5°. Winds were decidedly variable in all districts, though the northerly element predominated at most stations. Winds were very light over the whole Province. Humidity was decreasing slightly, and was moderate in all districts. The proportion of cloud also was moderate in all divisions. A few local showers fell in Orissa, South-West and North Bengal, and at one or two stations in South Behar and Chutia Nagpur, but almost the whole reporting area was rainless. The only heavy showers were at Maliara 1.7 inches, Chyebassa 0.62 inch, and Rampore Haut 0.27 inch.

Tuesday, 16th October.—Pressure had decreased at nearly all stations. The decrease was largest in North and South Behar, where it amounted to about 0.05", and least in East Bengal and Orissa. Notwithstanding this decrease of pressure, it was still above the normal in all divisions, the excess pressure ranging from 0.11" at Durbhanga and Hazaribagh to 0.08" in East Bengal. Temperature was rising in East Bengal, Chutia Nagpur, and at most stations in North Bengal, but in North Behar temperature was falling. In other districts the changes were small. Temperature was about 5° above the normal in Chutia Nagpur, about 2° above the normal in North Behar and East Bengal, and about 1° above the normal in Orissa, South-West Bengal and South Behar. Winds continued light and irregular. South-westerly winds were blowing in South Behar, and at some stations in South-West Bengal and North Bengal, but northerly winds generally prevailed in other districts. Wind velocities in all cases were small. Humidity began to decrease in all districts, and was small in South Behar and Chutia Nagpur. Cloud proportion had also diminished rapidly at almost all stations. Very small amounts of cloud were reported. One or two showers fell in South-West, East, and North Bengal, but the whole Province was almost rainless. The only amounts of rain worthy of record were Netrokona 0.96 inch, Rampore Haut 0.47 inch, Mymensingh 0.37 inch and Bogra 0.31 inch.

Wednesday, 17th October.—Pressure had increased somewhat rapidly in Chutia Nagpur, Behar, and North Bengal, but in South-West Bengal the decrease was rather smaller. In East Bengal most stations reported a slight increase of pressure. Pressure in South and North Behar was relatively low, though at all stations it was above the normal of the day, the excess ranging from 0.08" at Chittagong to 0.01" at Patna. Temperature continued high in all districts, and was above the normal at all stations except False Point. Temperature was 3° above the normal in Chutia Nagpur, and from 1° to 2° above it at nearly all the other reporting stations. Winds continued rather irregular, though there was a decided increase in the number of stations reporting southerly winds. The majority of stations this morning reported southerly and south-westerly winds, and the wind velocity had also

increased slightly at most stations. Humidity continued to decrease and was very small at the stations in Behar and Chutia Nagpur. It was also fairly small at most other stations. Cloud proportion had again decreased, and South West Bengal, North and South Behar, and Chutia Nagpur reported practically cloudless skies. A few local showers again fell in East, North, and South-West Bengal, but the remainder of the reporting area was quite rainless. The largest amounts received were Jessore 0.96 inch, Khatra 0.9 inch, Culna 0.88 inch, Jamalpore 0.38 inch, Pubna 0.6 inch, Netrokona 0.17 inch, Serajunge 0.38 inch, and Magoorah 0.31 inch.

Thursday, 18th October.—Pressure continued to decrease in Orissa and South-West Bengal, and at some stations in East and North Bengal, but it was increasing slightly in Behar and Chutia Nagpur. Pressure was comparatively low at most stations in South Behar, but it was at almost all stations decidedly above the normal for the day. In Orissa, South-West Bengal, and Chutia Nagpur the average excess pressure was 0.04", while in East Bengal and North Behar it was 0.07". The changes of temperature were small and variable. It was, however, rising generally in South-West Bengal and Orissa. It was above the normal in all districts. The average excess temperature in Chutia Nagpur and South-West Bengal was 2°, while it was about 1° in the other divisions. Winds continued rather variable. There was, however, a strong south-westerly element in the winds in South Behar and South-West Bengal, and a strong easterly element in the winds in East and North Bengal. The northerly element in the winds was not so strong to-day as it had been lately. Wind velocities had distinctly increased in almost all divisions, and moderate winds were blowing. With the extension of the southerly winds humidity was fairly high in all districts, except South Behar and Chutia Nagpur, where it continued small. Cloud proportion had also increased from the extension of the southerly winds, and was moderate in all districts, except in Chutia Nagpur, where the sky was cloudless.

One or two showers were reported from Orissa, South-West, East and North Bengal, but the whole of Behar was absolutely rainless. The only amounts of rain worthy of record fell in the Mymensingh district, when Jamalpore received 0.77 inch, Kishoregunge 0.62 inch, Netrokona 0.53 inch, and Mymensingh 0.47 inch. In all other cases the amounts did not average more than one or two-tenths of an inch of rain.

Friday, 19th October.—The barometric changes were small and rather variable in all districts, except Behar, where a distinct rise had taken place. This had the effect of making pressure rather more uniform over the whole Province, and only Chutia Nagpur showed comparatively low pressure. Pressure was above the normal by amounts which ranged from 0.11" in North Behar to 0.03" in Orissa. The changes of temperature were generally small. It continued above the normal in Chutia Nagpur, Orissa, South-West and East Bengal, but was more nearly normal in Behar. Winds became more northerly in almost all divisions. North-westerly winds were general in Chutia Nagpur and South Behar, while north-easterly winds were general in North Behar and North Bengal. They were still south-westerly and westerly in Orissa and South-West Bengal. Wind velocities were diminishing, and light winds prevailed everywhere. Humidity was exceptionally low in Chutia Nagpur and at some stations in South Behar. It was moderate in all other districts. The amount of cloud, however, continued tolerably large in all districts.

A few showers fell in South-West and East Bengal, but with these exceptions the whole reporting area was rainless. Hooghly reported rather a heavy shower of 2.63 inches; Netrokona received 0.63 inch, Baraset 0.61 inch, Fenny 0.56 inch, and Burrisal 0.48 inch. The other amounts reported were small.

METEOROLOGICAL OFFICE, BENGAL,

ALEXANDER PEDLER, F.C.S.,

The 19th October 1883.

Offg. Meteorological Reporter to the Govt. of Bengal.

MEMORANDA.

The returns of the first class Municipalities in Bengal for the week ending 29th September 1883 furnish the following results:—

Rates at which Births and Deaths registered.

Births	..	..	Ratio per mille for weeks ending—	
			29th September.	22nd September.
Deaths	..	..	26.9	25.3
			31.4	27.2

exhibiting a further improvement in the record of both events in comparison with the week ending 15th September.

Municipalities which returned the highest birth-rates.

		Ratio per mille.
Gya	..	70.4
Bhagulpore	..	62.5
Serampore	..	45.1
Chuprah	..	43.0
Patna	..	30.2

Municipalities which returned the highest death-rates.

		Ratio per mille.
Gya	..	79.3
Bhagulpore	..	41.6
Patna	..	37.0
Santipore	..	36.6
Ranaghat	..	36.0
Suburbs of Calcutta	..	35.6
Hughli	..	32.2
Burdwan	..	32.0
Poori	..	30.0
Midnapore	..	29.4
Chittagong	..	28.2
Mozufferpore	..	28.0
Monghyr	..	27.1
Comillah	..	27.0
Serampore	..	25.5
Kishnaghur	..	25.0

Mortality from the specific death-causes compared with similar information for the preceding week.

	..	..	Ratio per mille for the weeks ending—	
			29th September.	22nd September.
Cholera	..	..	3.2	2.1
Small-pox	..	..	1	..
Fever	..	..	14.5	12.7
Bowel-complaints	..	..	4.2	4.3
Injury	..	..	.9	6
Other causes	..	..	8.5	7.5

The above figures indicate that there was an increase of mortality from all the death-causes except bowel-complaints, particularly from fever.

Municipalities which are reported to have returned the highest death-rates per 1,000 of their populations from the above-mentioned death-causes, excepting small-pox, which appears to have prevailed only in the Patna, Gya and Bhagulpore towns, and very mildly.

Cholera.

	15.0	
Gya	..	
Bhagulpore	..	9.1
Suburbs of Calcutta	..	7.0
Chuprah	..	3.9
Monghyr	..	3.6

Fever.

	30.1	
Gya	..	
Ranaghat	..	24.0
Santipore	..	23.3
Comillah	..	23.1
Kishnaghur	..	20.0

Bowel-complaints.

	12.3	
Gya	..	
Patna	..	7.1

Injury.

	12.0	
Ranaghat	..	

Other Causes.

	19.3	
Poori	..	
Gya	..	17.8
Chittagong	..	16.4
Midnapore	..	15.5
Dacca	..	14.3
Burdwan	..	12.2
Patna	..	11.7
Bhagulpore	..	10.8

Mortality in relation to Sex, Class and Age.

According to Sex.

	Ratio per mille.
Males	33.0
Females	29.2

According to Class.

	Ratio per mille.
Christians	14.2
Hindus	33.9
Mahomedans	26.4

According to Age.

	Ratio per mille.
Under 1 year	304.4
1 and under 5 years	43.9
5 and under 10	17.8
10 and under 15	16.2
15 and under 20	20.4
20 and under 30	22.7
30 and under 40	19.6
40 and under 50	20.2
50 and under 60	23.2
60 years and upwards	64.7

F. W. A. DEFABECK,

Officiating Sanitary Commissioner for Bengal.

Bengal during the week ending 29th September 1883.

MORTALITY ACCORDING TO—

SEX.

DISTRICTS.	NAMES OF MUNICIPALITIES.	POPULATION.			BIRTHS.			DEATHS FROM—			RATIO PER 1,000 OF POPULATION FOR ANNUM.	COMPARISON WITH PREVIOUS PERIODS.	DEATHS.	RATIO PER 1,000 OF POPULATION PER ANNUM.				
		NUMBER.		Ratio per 1,000 of male births to every 100 female births.	Ratio per 1,000 of female births to every 100 male births.		Ratio per 1,000 of male deaths to every 100 female deaths.		Ratio per 1,000 of female deaths to every 100 male deaths.									
		Males.	Females.		Total.	Males.	Females.	Total.	Males.	Females.								
Burdwan	Burdwan	18,083	16,017	34,080	11	6	17	198	91	259	183	...	122	320	442			
Midnapur	Midnapur	16,635	15,500	32	1	4	47	15	62	310	...	10	19	124	304			
Hugli	Hugli and Chinsurah	19,179	19,539	38,718	15	6	21	201	81	282	250	2	14	24	342			
Serampore	Serampore	13,559	12,937	26,496	17	6	23	333	118	451	283	...	6	2	27			
Uttarpur	Uttarpur	8,046	8,464	5,510	1	1	2	94	94	189	100	...	1	1	1			
Howrah	Howrah	60,850	44,639	103,928	23	36	49	113	128	241	88	3	23	5	36			
24 Parganas	Suburbs of Calcutta	147,205	101,324	251,439	58	52	110	120	107	227	111	34	73	21	1			
Sudden	Kishnagar	19,413	22,169	41,582	1	5	6	12	62	75	20	...	16	...	4			
Eschihhye	Ranaghat	4,028	4,655	8,683	...	...	...	...	...	...	...	4	20	...	...	
Dasgupta	Santipore	11,589	12,542	24,131	...	5	5	...	...	...	15	...	1	17	...
Jessore	Jessore	4,850	3,965	8,805	2	1	3	12	2	67	183	...	1	1	...			
Rampore	Rampore	10,766	9,925	19,791	3	3	6	79	79	158	100	...	3	3	...			
Darjiling	Darjiling	4,579	2,459	7,018	...	...	...	...	...	...	...	1	1	1	74
Dacca	Dacca	42,782	37,379	80,161	20	13	33	150	84	214	153	...	9	6	22			
Chittagong	Narangbari	7,405	4,956	12,061	1	1	2	41	41	83	100	...	1	1	...			
Tipperah	Chittagong	13,540	8,790	22,120	6	3	9	14	1	21	211	...	5	7	12			
Patna	Comilla	8,153	5,353	13,066	2	4	6	77	154	251	60	...	1	7	...			
Gya	Patna City	78,703	81,475	160,257	53	41	93	169	153	302	193	...	49	22	6			
Shahabad	Gya	38,250	37,531	76,211	48	55	163	32	38	704	87	22	1	44	18			
Motiafipore	Arran	29,460	22,505	48,465	10	7	17	11	9	84	203	142	...	9	1	5		
Durbanges	Meautiipore	23,084	19,658	42,742	7	4	11	85	49	134	175	1	12	1	4			
Sarun	Durbanges	33,774	38,922	66,066	11	16	27	86	12	212	68	...	13	6	22			
Blugupore	Jhuprah	26,044	37,540	53,540	27	17	44	26	4	43	168	4	8	6	34			
Monghyr	Blugupore	29,640	27,513	57,543	34	35	69	39	3	625	317	97	10	1	18			
Purneah	Monghyr	28,154	29,566	67,529	9	10	19	51	91	172	90	4	16	6	145			
Pooreh	Purneah	8,463	6,553	15,016	...	1	1	1	1	1	35	No male births.	3	2	104			
Pooreh	Pooreh	18,627	11,935	24,932	6	3	9	12	9	64	193	200	1	9	14			
	Total	706,251	62,449	1,349,680	367	322	680	143	126	269	113	62	3	572	100			
	Total	706,251	62,449	1,349,680	367	322	680	143	126	269	113	62	3	572	100			

Data not available.

DISTRICTS.	NAMES OF MUNICIPALITIES.	POPULATION.			BIRTHS.			DEATHS FROM—			RATIO PER 1,000 OF POPULATION FOR ANNUM.	COMPARISON WITH PREVIOUS PERIODS.	DEATHS.	RATIO PER 1,000 OF POPULATION PER ANNUM.				
		NUMBER.		Ratio per 1,000 of male births to every 100 female births.	Ratio per 1,000 of female births to every 100 male births.		Ratio per 1,000 of male deaths to every 100 female deaths.		Ratio per 1,000 of female deaths to every 100 male deaths.									
		Males.	Females.		Total.	Males.	Females.	Total.	Males.	Females.								
Burdwan	Burdwan	18,083	16,017	34,080	11	6	17	198	91	259	183	...	122	320	442			
Midnapur	Midnapur	16,635	15,500	33	1	4	47	15	62	310	...	10	19	124	344			
Hugli	Hugli and Chinsurah	19,179	19,539	38,718	15	6	21	201	81	282	250	2	14	24	342			
Serampore	Serampore	13,559	12,937	26,496	17	6	23	333	118	451	283	...	6	2	27			
Uttarpur	Uttarpur	8,046	8,464	5,510	1	1	2	94	94	189	100	...	1	1	1			
Howrah	Howrah	60,850	44,639	103,928	23	36	49	113	128	241	88	3	23	5	36			
24 Parganas	Suburbs of Calcutta	147,205	101,324	251,439	58	52	110	120	107	227	111	34	73	21	1			
Sudden	Kishnagar	19,413	22,169	41,582	1	5	6	12	62	75	20	...	16	...	4			
Eschihhye	Ranaghat	4,028	4,655	8,683	...	...	...	...	...	...	...	4	20	...	...	
Dasgupta	Santipore	11,589	12,542	24,131	...	5	5	...	...	...	15	...	1	17	...
Jessore	Jessore	4,850	3,965	8,805	2	1	3	12	2	67	183	...	1	1	...			
Rampore	Rampore	10,766	9,925	19,791	3	3	6	79	79	158	100	...	3	3	...			
Darjiling	Darjiling	4,579	2,459	7,018	...	...	...	...	...	...	1	1	1	74	...
Dacca	Dacca	42,782	37,379	80,161	20	13	33	150	84	214	153	...	9	6	22			
Chittagong	Narangbari	7,405	4,956	12,061	1	1	2	41	41	83	100	...	1	1	...			
Tipperah	Chittagong	13,540	8,790	22,120	6	3	9	14	1	21	211	...	7	12	117			
Patna	Comilla	8,153	5,353	13,066	2	4	6	77	154	251	60	...	1	7	...			
Gya	Patna City	78,703	81,475	160,257	53	41	93	169	153	302	193	...	49	22	6			
Shahabad	Gya	38,250	37,531	76,211	48	55	163	32	38	704	87	22	1	44	18			
Motiafipore	Arran	29,460	22,505	48,465	10	7	17	11	9	84	203	142	...	9	1			
Durbanges	Meautiipore	23,084	19,658	42,742	7	4	11	85	49	134	175	1	12	1	4			
Sarun	Durbanges	33,774	38,922	66,066	11	16	27	86	12	212	68	...	13	6	22			
Blugupore	Jhuprah	26,044	37,540	53,540	27	17	44	26	4	43	168	4	8	6	34			
Monghyr	Blugupore	29,640	27,513	57,543	34	35	69	39	3	625	317	97	10	1	45			
Purneah	Monghyr	28,154	29,566	67,529	9	10	19	51	91	172	90	4	16	6	34			

15 16 17 18 19

MORTALITY ACCORDING TO—

Class.

DISTRICTS.
NAMES OF MUNICIPALITIES.DEATHS AMONG—
RATIO PER 1,000 OF POPULATION PER ANNUM.

Age.

DEATHS.
RATIO PER 1,000 OF POPULATION PER ANNUM.

DISTRICTS. NAMES OF MUNICIPALITIES.	DEATHS AMONG— RATIO PER 1,000 OF POPULATION PER ANNUM.										DEATHS. RATIO PER 1,000 OF POPULATION PER ANNUM.												
	Christians.	Buddhistes.	Mahomedans.	Hindus.	Other classes.	Buddhistes.	Mahomedans.	Hindus.	Other classes.	Christians.	Buddhistes.	Mahomedans.	Hindus.	Other classes.	Buddhistes.	Mahomedans.	Hindus.	Other classes.	Christians.	Buddhistes.	Mahomedans.	Hindus.	Other classes.
Burdwan	16	5	...	351	2573	...	7	1	...	1	2	1	5515	230
Midnapur	17	2	...	341	144	...	7	1	...	1	1	1	4509	...
Hughli	21	3	...	345	229	...	7	1	2	2	1	1	354	...
Serampore	11	2	...	227	1109	...	4	1	1	1	2	1	195	197
Uttarpur	1	...	...	98	...	...	1	2	1	1	1	1	288	...
Howrah	31	5	...	198	115	...	8	4	2	1	3	2	160	180
24-Pergunnahs	3	112	57	355	388	...	30	16	5	8	13	26	18	16
Kishnagar	8	12	...	129	721	...	1	4	2	1	2	1	740	...
Nuddea	5	1	...	355	381	...	1	1	2	1	1	1	2112	...
Santipore	11	6	...	333	456	...	1	3	2	3	3	3	159	...
Jesore	1	...	...	136	...	...	1	1	1	1	1	1	332	615
Raiabazar	5	1	...	355	381	...	1	1	2	1	1	1	600	835
Darjiling	11	6	...	333	456	...	1	3	2	3	3	3	159	419
Darjeeling	1	...	...	136	...	...	1	1	1	1	1	1	2112	...
Dacca	19	18	...	113	...	...	1	2	1	1	1	1	733	...
Nariningauj	1	1	...	159	...	...	1	1	1	1	1	1	2112	...
Chittagong	3	9	...	269	306	...	12	9	2	3	3	1	1847	...
Comilla	2	5	...	175	352	...	3	5	4	3	4	4	3288	141
Patna	86	28	...	376	356	...	50	15	5	3	5	3	318	141
Gya	102	14	...	584	453	...	28	21	9	3	1	1	119	119
Darbhanga	20	2	...	215	579	...	4	1	1	1	1	1	1334	119
Sarun	16	1	...	268	42	...	5	4	1	1	1	1	2019	469
Bhagalpur	18	6	...	312	208	...	5	7	3	1	1	1	273	201
Maujpur	27	3	...	314	124	...	5	5	3	1	1	1	1751	1751
Purnesh	3	3	...	113	276	...	1	1	1	1	1	1	188	91
Poore	14	...	...	303	...	...	3	3	3	3	3	3	339	101
TOTAL	3	602	188	...	142	339	904	177	93	45	56	39	119	87

PUBLIC WORKS DEPARTMENT.—BENGAL.

Statement showing heights over mean sea-level and low-water on the rivers Ganges, Bhagiruthi, and Brahmapootra, for the month of September 1883.

RIVER GANGES.										RIVER BHAGIRUTHI.				BRAHMAPOOTRA.	
Date.	Miles.	Mirzapore.	Benares.	Burar.	Dinapore.	Moughyr.	Sahibgunee.	Rampore Bealeah.	Goalundo.	Berhampore.	Krishnaghur.	Brahmapootra.	Gowhatti.		
1st	...	918' 47	922	908' 72	10' 42	119' 47	21' 90	13' 96	10' 81	85' 50	17' 93	59' 93	18' 98	27' 02	24' 20
2nd	10' 60	916' 29	906' 45	10' 17	119' 23	91' 85	13' 47	11' 92	17' 30	17' 93	59' 98	18' 98	27' 70	27' 87	94' 15
3rd	10' 90	916' 32	906' 47	10' 08	119' 13	92' 50	13' 38	11' 43	17' 85	85' 58	18' 78	18' 83	22' 57	19' 93	171' 91
4th	9' 83	915' 73	906' 47	10' 00	119' 05	92' 50	13' 25	11' 92	18' 25	86' 25	18' 25	18' 83	22' 00	19' 93	21' 78
5th	11' 33	915' 55	10' 50	20' 70	10' 90	119' 05	22' 70	15' 25	11' 70	18' 33	18' 42	18' 76	18' 42	24' 00	171' 78
6th	12' 43	913' 85	10' 35	20' 05	19' 55	119' 63	22' 90	15' 33	11' 18	18' 39	69' 42	18' 42	18' 76	24' 00	172' 78
7th	13' 84	910' 63	13' 00	21' 00	19' 80	101' 05	93' 50	15' 42	15' 73	18' 53	69' 58	17' 93	19' 33	52' 87	172' 96
8th	13' 83	910' 63	16' 17	21' 97	13' 90	182' 05	23' 70	15' 33	11' 60	18' 53	69' 58	17' 75	19' 33	23' 80	172' 96
9th	16' 00	922' 29	17' 59	15' 00	184' 05	23' 60	15' 51	15' 53	18' 00	86' 67	18' 50	19' 54	23' 90	171' 76	171' 76
10th	17' 25	922' 47	19' 00	21' 50	17' 08	186' 13	24' 40	16' 03	11' 93	18' 97	86' 75	18' 97	19' 67	23' 90	171' 76
11th	17' 45	925' 47	18' 55	18' 55	18' 55	187' 30	24' 30	16' 33	18' 75	18' 75	86' 75	18' 75	19' 71	21' 50	170' 71
12th	16' 67	922' 80	18' 32	915' 72	15' 50	187' 55	94' 50	16' 42	18' 75	18' 75	86' 75	18' 75	19' 29	21' 50	170' 71
13th	10' 25	925' 47	20' 08	21' 78	18' 75	22' 08	191' 13	23' 85	16' 25	18' 70	86' 75	18' 70	28' 08	21' 50	169' 76
14th	27' 35	233' 47	33' 25	24' 80	22' 08	239' 01	26' 00	24' 75	15' 98	86' 92	18' 79	18' 83	20' 04	53' 75	169' 76
15th	33' 35	233' 47	37' 21	239' 72	25' 00	196' 05	27' 50	16' 75	17' 30	19' 60	87' 00	18' 79	19' 46	23' 27	169' 76
16th	33' 30	233' 72	34' 00	231' 80	27' 38	196' 38	29' 70	16' 43	20' 50	18' 95	88' 47	19' 55	19' 67	23' 27	169' 76
17th	32' 75	233' 97	34' 00	231' 90	27' 38	196' 80	29' 70	16' 43	21' 42	19' 42	90' 43	20' 50	20' 21	53' 41	19' 31
18th	30' 75	233' 97	33' 00	229' 80	27' 38	196' 55	29' 50	16' 33	18' 18	18' 75	86' 75	18' 75	19' 29	53' 41	19' 31
19th	25' 25	233' 47	30' 00	223' 29	27' 07	226' 47	26' 58	16' 50	18' 93	18' 93	86' 75	18' 75	19' 29	53' 40	19' 31
20th	20' 00	232' 29	27' 00	223' 29	27' 07	226' 05	28' 60	16' 25	18' 70	18' 70	86' 75	18' 70	19' 42	28' 21	169' 76
21st	23' 33	229' 75	24' 75	221' 80	23' 75	191' 21	21' 17	11' 93	11' 93	11' 93	86' 92	18' 79	19' 50	20' 50	169' 76
22nd	20' 67	232' 99	24' 75	219' 05	22' 17	191' 22	21' 17	11' 92	11' 92	11' 92	86' 92	18' 79	19' 50	20' 50	169' 76
23rd	18' 33	232' 35	20' 50	217' 50	21' 17	190' 39	21' 25	11' 93	11' 93	11' 93	86' 92	18' 79	19' 50	20' 50	169' 76
24th	17' 17	232' 39	19' 00	215' 50	19' 17	188' 22	21' 25	11' 93	11' 93	11' 93	86' 92	18' 79	19' 50	20' 50	169' 76
25th	16' 08	231' 50	17' 38	213' 50	21' 43	214' 38	21' 43	11' 93	11' 93	11' 93	86' 92	18' 79	19' 50	20' 50	169' 76
26th	14' 33	229' 55	16' 50	213' 32	17' 09	186' 65	22' 58	16' 25	18' 70	18' 70	86' 92	18' 79	19' 50	20' 50	169' 76
27th	13' 33	219' 55	16' 00	211' 50	16' 38	184' 35	22' 58	16' 25	18' 70	18' 70	86' 92	18' 79	19' 50	20' 50	169' 76
28th	12' 42	218' 64	14' 42	211' 50	16' 38	183' 38	22' 58	16' 25	18' 70	18' 70	86' 92	18' 79	19' 50	20' 50	169' 76
29th	11' 67	217' 89	13' 00	209' 58	13' 00	182' 65	21' 50	16' 53	16' 53	16' 53	86' 92	18' 79	19' 50	20' 50	169' 76
30th	11' 00	217' 23	12' 83	209' 63	12' 75	181' 80	20' 60	16' 43	16' 43	16' 43	87' 00	17' 50	17' 50	20' 50	169' 76

G. F. E. S. NEILL, Major, M.S.C.,
Under-Secy, to the Govt. of Bengal, P. W. Dept.

Dated 23rd October 1883.

Weekly Return of Traffic Receipts on Indian Railways.

EAST INDIAN RAILWAY.

Approximate Return of Traffic for week ended 6th October 1883 on 1,509 miles open.

	COACHING TRAFFIC.		MERCHANTISE AND MINERAL TRAFFIC.		Other earnings (estimated.)	Total earnings.	TOTAL TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
Total traffic for the week...	227,653	Rs. A. P. 2,63,816 5 0	Mds. S. 23,51,484 10	Rs. A. P. 5,69,976 6 5	Rs. A. P. 17,821 5 6	Rs. A. P. 8,51,614 0 11	Rs. A. P. 61,763 1 12	Rs. A. P. 123,234 1 12	Rs. A. P. 184,998
Or per mile of railway	174 13 3		.....	377 11 6	11 12 11	564 5 8	.....	.....	.....
For previous 13 weeks of half-year	2,521,959	25,96,132 0 0	3,07,26,709 0	84,80,699 11 2	2,26,025 12 5	1,18,03,667 7 7	706,062 1 12	1,782,050 1 12	2,578,112 1 12
Total for 14 weeks	2,740,612	28,59,948 5 0	3,30,78,193 10	90,50,586 1 7	2,44,747 1 11	1,21,55,281 8 6	857,825 1 12	1,905,284 1 12	2,763,110 1 12
COMPARISON.									
Total for corresponding week of previous year	170,807 1	1,79,198 8 10	20,73,050 30	5,35,628 12 9	21,327 9 4	7,36,154 14 11	65,632	100,846	166,498
Per mile of railway corresponding week of previous year	.....	118 14 11	.....	355 7 9	14 2 6	488 9 2	.....	.....	.....
Total to corresponding date of previous year	2,465,623	28,76,085 14 0	2,97,14,174 20	74,41,206 11 10	2,75,738 2 3	1,05,93,030 12 1	774,150	1,522,738	2,296,888

Approximate statement of gross receipts of the East Indian Railway, prepared in accordance with Public Works Department Circular No. XXI Railway, dated 23rd July 1883.

Mean mileage worked.	RECEIPTS FOR WEEK ENDING 7TH OCTOBER 1882.			RECEIPTS FOR WEEK ENDING 6TH OCTOBER 1883.			TOTAL RECEIPTS FROM 1ST APRIL 1882 TO 7TH OCTOBER 1882.			TOTAL RECEIPTS FROM 1ST APRIL 1883 TO 6TH OCTOBER 1883.			Total increase in 1883	Total decrease in 1883.
	Receipts.	Per mile work ed.	Mean mileage worked.	Receipts.	Per mile work ed.	Mean mileage worked.	Total receipts.	Per mile work ed.	Mean mileage worked.	Total receipts.	Per mile work ed.	Per mile work ed.		
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1,506 1	7,36,155	489	1,500	8,51,614	564	1,506 1	2,21,85,095	14,724	1,509	2,62,23,677	17,378	40,38,582	*	.....

EAST INDIAN RAILWAY.

Approximate Return of Traffic for week ended 13th October 1883 on 1,509 miles open.

	COACHING TRAFFIC.		MERCHANTISE AND MINERAL TRAFFIC.		Other earnings (estimated.)	Total earnings.	TOTAL TRAIN-MILES RUN.							
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.					
Total traffic for the week...	192,604	Rs. A. P. 2,18,002 6 0	Mds. S. 17,10,208 30	Rs. A. P. 3,87,968 11 8	Rs. A. P. 16,992 10 3	Rs. A. P. 6,22,963 11 11	Rs. A. P. 59,044 1 12	Rs. A. P. 88,824 1 12	Rs. A. P. 147,868 1 12					
Or per mile of railway	.....	144 7 6	.....	257 1 8	11 4 2	412 13 4	.....	.....	.....		
For previous 14 weeks of half-year	2,749,612	28,59,948 5 0	3,30,78,193 10	90,50,586 1 7	2,44,747 1 11	1,21,55,281 8 6	857,825 1 12	1,905,284 1 12	2,763,110 1 12					
Total for 15 weeks	2,942,216	30,77,950 11 0	3,47,88,402 0	94,38,554 13 3	2,61,739 12 2	1,27,78,245 4 5	916,870 1 12	1,994,109 1 12	2,910,970 1 12					
COMPARISON.														
Total for corresponding week of previous year	186,848 1	2,19,582 7 6	23,70,963 30	6,33,826 1 9	21,454 8 8	8,74,863 1 11	65,077	113,791	178,868
Per mile of railway corresponding week of previous year	145 11 9	420 10 6	14 3 10	589 10 1
Total to corresponding date of previous year	2,652,471 1	30,35,668 5 6	3,20,85,138 10	80,75,032 13 7	2,97,192 10 11	1,14,67,893 14 0	839,227	1,636,529	2,475,756

Approximate statement of gross receipts of the East Indian Railway, prepared in accordance with Public Works Department Circular No. XXI Railway, dated 23rd July 1883.

Mean mileage worked.	RECEIPTS FOR WEEK ENDING 14TH OCTOBER 1882.			RECEIPTS FOR WEEK ENDING 13TH OCTOBER 1883.			TOTAL RECEIPTS FROM 1ST APRIL 1882 TO 14TH OCTOBER 1882.			TOTAL RECEIPTS FROM 1ST APRIL 1883 TO 13TH OCTOBER 1883.			Total increase in 1883	Total decrease in 1883.
	Receipts.	Per mile worked.	Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked.	Per mile worked.		
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.		
1,506 1	8,74,868	681	1,500	622,964	413	1,506 1	2,30,59,958	15,304	1,500	2,68,46,611	17,791	37,86,633	.....	.....

BENGAL PROVINCIAL RAILWAYS.

Weekly Statement of Traffic Receipts.

Latest return received	Name of Railway	Length open.	RECEIPTS FOR WEEK ENDING		TOTAL RECEIPTS FROM 1ST JANUARY		Total increase in 1883.	Total decrease in 1883.	Percentage of increase.
			2nd Sept. 1882.	1st Sept. 1883.	To 2nd Sept. 1882.	To 1st Sept. 1883.			
18th		Miles.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs.
2nd September	Northern Bengal	230	37,289 0 0	36,478 0 0	12,85,946 0 0	14,89,400 0 0	2,63,454 0 0	Nil	16
1st " "	Tirhoot	196	11,896 0 0	19,426 0 0	4,48,692 0 0	5,80,679 0 0	1,11,987 0 0	"	25
2nd "	Calcutta and South-Eastern.	56	2,639 0 0	4,386 0 0	1,26,151 0 0	2,03,366 0 0	77,205 0 0	"	61
8th "	Nalhati	27½	1,352 0 0	1,764 0 0	47,451 0 0	56,928 0 0	9,477 0 0	"	20
	Total	479½	53,176 0 0	62,054 0 0	19,08,240 0 0	23,10,363 0 0	4,02,123 0 0	"	21

DARJEELING-HIMALAYAN RAILWAY COMPANY, LIMITED.

Weekly Statement of Traffic Receipts.

The latest return received	Length open.	RECEIPTS FOR WEEK ENDING		TOTAL RECEIPTS FROM 1ST JULY		Total increase in 1883.	Total decrease in 1883.	Percentage of increase or decrease.
		9th September 1882.	8th September 1883.	To 9th September 1882.	To 8th September 1883.			
8th September 1883 ...	50	Rs. A. P. 7,248 7 0	Rs. A. P. 8,685 7 0	Rs. A. P. 56,107 15 3	Rs. A. P. 80,919 7 8	Rs. A. P. 24,811 8 5	Rs. A. P.	+44 7

Calcutta, the 18th October 1883.

GILLANDERS, ARBUTHNOT & Co., Agents.

DARJEELING-HIMALAYAN RAILWAY COMPANY, LIMITED.

Weekly Statement of Traffic Receipts.

The latest return received	Length open.	RECEIPTS FOR WEEK ENDING		TOTAL RECEIPTS FROM 1ST JULY		Total increase in 1883.	Total decrease in 1883.	Percentage of increase or decrease.
		16th September 1882.	15th September 1883.	To 16th September 1882.	To 15th September 1883.			
15th September 1883 ...	50	Rs. A. P. 7,363 4 3	Rs. A. P. 7,420 2 0	Rs. A. P. 63,471 3 6	Rs. A. P. 88,339 9 8	Rs. A. P. 24,893 6 2	Rs. A. P.	+39 5

Calcutta, the 18th October 1883.

GILLANDERS, ARBUTHNOT & Co., Agents.



SUPPLEMENT TO The Calcutta Gazette.

WEDNESDAY, OCTOBER 31, 1883.

OFFICIAL PAPERS.

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RESOLUTION ON THE REPORT ON ESTATES UNDER THE DIRECT MANAGEMENT OF GOVERNMENT IN THE LOWER PROVINCES OF BENGAL FOR 1882-83.

REVENUE DEPARTMENT.—LAND REVENUE.

Darjeeling, the 20th October 1883.

RESOLUTION.

READ—

A Report by the Board of Revenue on estates under the direct management of Government in the Lower Provinces of Bengal for the year 1882-83.

In reviewing the Report on the Land Revenue Administration of the Lower Provinces for 1881-82, the Lieutenant-Governor made the following remarks:—“In dealing with the subject of estates under the direct management of Government, the Lieutenant-Governor would in future desire much more detailed and specific information than the present form of the Board's Annual Report affords. He would wish, at any rate, that the report on this branch of their administration should form a separate and distinct chapter, in which the general character of the management, whether by European or native agency, should be reviewed in each district.” The Board now respond to that invitation by submitting a separate report, which, compared with last year's statement, gives in much fuller detail an account of the management of Government estates in these Provinces. On future occasions the Board will probably be in a position to communicate to Government more systematically the information which is needed; and it may be found unnecessary to submit a separate report on this subject—a chapter in the Land Revenue Administration Report

will probably suffice. On the present occasion, however, the Lieutenant-Governor thinks that the Board of Revenue have exercised a wise discretion in giving to the subject that independent consideration which the special circumstances of the time require.

2. In the Report now under consideration, the term "Government estate" is applied to two classes of property—to estates which, belonging exclusively to Government, are under direct official management; and to estates the property of private parties, which are, owing to the recusancy of the proprietors, managed by Government. It has already been noticed in the review of the Board's Land Revenue Administration Report that there are 2,706 Government estates in these Provinces, with an annual rental of Rs. 19,96,054. All these estates, however, are not under the direct management of the officers of Government; some, for instance, being let out on farming leases. With Government estates not under direct official management, the Report now under notice has no concern; but, on the other hand, it does take account of those estates which, though not the property of the State, are under Government control. The Board do not on the present occasion fully distinguish the one class of estates from the other class; but the distinction is necessary, and should be observed in future reports.

3. During the last year there were 1,061 estates* under direct management in these Provinces, with an annual rental of

* The Chittagong district is one vast net-work of Government estates, in number about 45,000. For convenience of management, however, these estates are divided into five circles, and each of those circles counts as one estate only in the text.

Rs. 26,27,360, and these estates were managed at a gross cost of Rs. 1,81,889. The charges for management were thus 6·9 per cent. on the rental, which, it must be allowed, is a moderate percentage, and one which admits of increase (should an improved system of management involve greater cost) without fear of exceeding that reasonable proportion which management charges should bear to income. The financial results of the management of these 1,061 estates during the last year are exhibited in the following figured statement for each division:—

DIVISION.	Number of estates.	Gross demand.	Current demand.	Collections.	Percentage on gross demand.	Percentage on current demand in 1882-83.	Percentage on current demand in 1881-82.	Cost of management.
1	2	Rs.	Rs.	Rs.				Rs.
Burdwan	80	11,22,065	5,43,847	7,65,658	67·8	140·7	51·6	60,837
Presidency	124	2,58,682	1,91,088	2,03,016	76·3	106·2	97·5	13,218
Rajshahi and Cooch Behar	146	5,13,340	4,25,827	4,27,699	83·3	100·4	105·1	27,442
Dacca	23	3,72,435	2,86,221	2,91,007	78·1	101·6	103·7	14,665
Chittagong	272	6,7,470	3,93,679	4,02,852	65·2	102·2	97·4	30,915
Patna	85	2,62,818	1,66,246	1,62,135	79·9	97·5	104·1	14,081
Bhagalpore	62	1,35,694	98,216	1,16,130	85·5	118·2	112·4	6,436
Orissa	36	7,12,108	4,43,948	4,14,362	58·1	93·3	88·9	13,940
Chota Nagpore	32	78,464	78,288	77,766	98·8	99·0	101·6	1,246
Total	1,061	40,43,076	26,27,360	28,66,220	70·7	108·8	89·2	1,81,889

It is thus observable that in every division, except three, the year's collections exceeded the current demand; while in the three divisions in which the receipts fell short of the year's rent, the outstanding balances are small. Taking the Province as a whole, the receipts were 108·8 per cent. on the current demand, and 70·7 per cent. on the year's rent plus arrears. These results compare favourably with those of preceding years; and as they seem to have been secured consistently, in some districts at all events, with the redress of some longstanding grievances, they must be pronounced to be satisfactory.

4. The Board consider in detail for each division and district the extent of the outstanding arrears; and the probable reasons for ryot's default of payment. In the Burdwan Division the arrears are chiefly due from the Majnamutha and Jellamutha Estates in Midnapore; but it is gratifying to find that much progress has been made in removing the difficulties that beset the management of these estates. The enormous arrears which had accrued have now been reduced to, comparatively speaking, moderate dimensions, and as the unwillingness of the ryots to pay was not so much founded upon high rates of assessment as upon objections to the measurement and classification of soils fixed by the settlement officer, it may be hoped

that the final restoration of order and confidence, of which there are at last many signs, may not be so long delayed as the Board anticipate. The history of these estates during the last few years conveys to settlement officers the valuable lesson that no settlement proceeding can be successful unless the ryots, with full information as to facts, co-operate, and that progress should be made very cautiously until the co-operation, or at all events the attendance of the ryots, is secured. If the people affected stand aloof, it behoves the settlement officer to limit his operations, and by enforcing his awards in regard to a limited area, to convince the people that they have everything to lose and nothing to gain by an organized abstention such as the Midnapore ryots adopted in these settlements. The provisions of the new Rent Bill will probably strengthen the hands of settlement officers in such proceedings.

The Presidency Division shows considerable arrears only in the 24-Pergunnahs; but as it is explained that out of an outstanding balance of Rs. 69,923, as much as Rs. 47,119 fell due after the year had closed, the arrears would seem to be largely nominal. The disinclination of the ryots to pay under the circumstances does not seem unreasonable. The circumstances under which an arrear is shown before the money becomes due must be exceptional, and the Lieutenant-Governor would ask the Board to enquire whether the local accounts on this point might not with advantage be brought into harmony with the facts.

In the Rajshahye Division the collections have been better than in the preceding year; and the balances outstanding raise no point of special interest in any district except Julpigoree. Of the arrears in that district, the Deputy Commissioner writes thus:—

“The arrears in this district, which will doubtless come under attention, are, I believe, the result in the main of a bad settlement. I think it was very unfortunate that the settling officers were not directed to make more minute classification of lands. They divided the lands into four classes, viz. —

“Bastu or home land, rapit or low rice land, faringhati or high land, and waste land.

“So far as my experience goes, I believe home lands should be divided into two, and rupit and faringhati each into two, or even three sub-classes, with varying rates. If this had been arranged, if care had been taken that no jotedar should be called on to pay more than twice the rent he had previously paid, and if the enhancement had been distributed so as not to make the rent of one year more than 20 per cent of the previous year, I think the settlement would have been more successful, and the yearly balance would have been small. I have no hesitation in expressing my belief that many of the tenantry in the Western Dooars are rapidly becoming unprosperous; and that, if Government does not quickly undo a great deal of what has been done, the result will be that the mahajan, and not the ryot, will be rooted to the soil.”

With reference to these remarks, which suggest over-assessments, the Lieutenant-Governor learns with satisfaction that the proceedings in the Western Dooars are now being revised under orders of the Board; and he will await the submission of a full report on such revision. Meanwhile, it will be desirable that whenever there is a doubt regarding the fairness of the assessments, defaulting ryots should be treated with patience and leniency.

In the Dacca Division also the collections exceeded the current demand; but there are still large arrears. These arrears occur chiefly in Backergunge, where the existence of a long line of middlemen between the Government and the cultivators of the soil is found to militate against punctual realizations of rent. “Great difficulty,” says the Collector, “is experienced in the realization of rents from the under-tenureholders in certain estates, who generally default owing to their inability to collect rents from their cultivating ryots timely. Some under-tenants defer payment until the enforcement of coercive measures, and in the meantime, it is said, they employ the money to their own benefit by laying it out on interest or other speculations which bring them larger profits than what they have to pay as costs in certificate cases.”

The practice referred to is not uncommon in other parts of these Provinces, where middlemen, if unpunctual rent-payers, are not usually unsubstantial tenants. If with respect to such tenants the Government may have to wait for its money, it usually gets it in the long run. The case, it may be said, is different with private parties; they cannot always afford to wait, and this is no doubt too often true. It is to be hoped, however, that the facilities for realizing rents from tenureholders, which the Lieutenant-Governor trusts will

be provided by the Tenancy Bill, may remove the hardship from which private landlords suffer in this respect.

In the Chittagong Division the collections show some improvement; but there is still much ground to be made up in the way of realizing arrears. It is explained that these arrears are chiefly due to the opposition excited by the action of settlement officers in registering on the rent-rolls nomad cultivators instead of the responsible reclaimers of the soil. That is a question on which the Board have submitted a report to Government, and which is receiving the Lieutenant-Governor's careful attention in connection with the Tenancy Bill. As at present advised, Mr. Rivers Thompson is disposed to think that neither the interest of the landlord nor that of the tenant is advanced by stereotyping a rent system which is by nature changeful. In those partially reclaimed deltaic districts cultivation contracts and expands with the fall or rise in the price of rice, and to insist on a tenant paying rent for ten acres of land, when the market will permit of his cultivating only five acres, is to insist on an impossibility. The ryot absconds, and the demand swells the total of irrecoverable arrears. In these portions of Bengal, the supply of land is still larger than the demand for it. Ryots, therefore, are masters of the situation, and it would be as impracticable, on the one hand, to hold the ryot responsible for the rent of land which it will not pay him to cultivate, as, on the other hand, it would be unjust to refuse recognition of ryotti rights to him who is willing to run the risk of holding waste land in one year on the chance of making money on it the next. The testimony borne in Noakhali to the liberal terms of the settlement should facilitate improved collections. In Tipperah it would appear that a revision of the assessments is necessary.

In the Patna, Bhagulpore, and Chota Nagpore Divisions the outstanding balances call for no special remarks, and in Orissa it may be fairly hoped that the Lieutenant-Governor's recent orders reducing the assessment on the Khoorda Estate will reconcile the ryots to the settlement that has been made.

On the whole, then, it must be admitted that, from a financial point of view, the results of direct management during the year are satisfactory. With some exceptions, it may be accepted that tenants on Government estates have performed their duties towards their landlord fairly well, and it now remains to be seen how far the duties of the Government towards its tenants have been discharged, or, in other words, how the estates have been managed.

5. The Board describe the constitution and allotment of the management fund in the following terms:—

"The management charges are thus provided. Ten per cent. of the total collections on all the estates concerned is appropriated to meet the cost of their management and improvement, and is entered in the provincial accounts as a land revenue receipt. From the assets thus set apart, assignments are made by Government for expenditure on management proper, education, communication, and miscellaneous improvements, to the respective departments which deal with the expenditure for these purposes. Thus a sum equal to 7 per cent. of the collections of each year is placed at the disposal of the Board for allocation to districts on account of management proper, including petty settlement work, and $\frac{1}{2}$ per cent. for works of improvement. The remaining $\frac{3}{4}$ per cent. is assigned to education and roads, and with this the Board have no concern. As soon as the year's grant is placed at their disposal, the Board make the distribution to districts according as the circumstances of the different districts demand."

As regards the methods of management, the Board divide the agencies employed into four classes according as—(1) the management is carried on by the district staff as part of its ordinary work; or (2) by the district staff helped by a subordinate collecting establishment; or (3) by a manager with a suitable collecting staff; or (4) by a superior collecting staff acting under the Collector's special orders. The Board specify districts in which each class of agency is at work; but considering the classification in the light of those illustrations, it seems to the Lieutenant-Governor that while the third and fourth classes may be properly called managing agencies, it is a misuse of terms to apply the word management to the first and second. They are simply rent-collecting agencies, and with the wider and higher duties of management they have but little connection. From the report under notice, it is impossible to say what number of estates are subject to the control of each class of agency; but it seems that wherever estates are small, and this is the case in many districts, the first description of agency is utilized. The second mode, or a subordinate collecting

establishment to help the ordinary district staff, is employed in Julpigoree and Darjeeling, in some portions of the Orissa, Bhagulpore, and Chota Nagpore Divisions, in Backergunge and Noakholly. Of the third and regular system of management there are few examples, the most notable being the Jeipur Khas Mehals in Bogra; but of the fourth there are examples on a large scale in Chittagong, Pooree, and perhaps Midnapore.

6. Although the Board thus give a fourfold classification of management agencies, they make no comparison of the relative merits of each class. This much, however, may be gathered from the body of the report, that neither by the first nor second class of management is any useful purpose served beyond the mere collection of rent. The many petty estates under direct management through the ordinary district staff are more a hindrance than a help to useful administration. As the Collector of Midnapore says, "they seem to worry and distract the attention of the district officer." The Board are evidently of the same opinion, for they "recommend that the character of each estate, which is now held by Government, should be examined; that shares belonging to Government in joint undivided estates, that very petty estates, and estates in which the land is so scattered that there is no reasonable hope of their benefiting by the attention of Government officers, should be got rid of; the condition being always insisted on that the lands should be measured, and the rights of the tenants carefully recorded before any estate is allowed to pass out of the hands of Government. The full powers of the Collector's management could then be directed to estates which were really capable of benefiting by the effects of it." The recommendations which the Board now make upon this subject coincide with the views which the Lieutenant-Governor has been forming upon it. It is quite true, as the Board observe, that Mr. Rivers Thompson recently withheld his assent from the sale of some petty estates from which the Board have inferred a reluctance on the part of Government to sanction the sale of any Government estates at all. Instances, however, are not wanting where the Lieutenant-Governor, during the past year, did sanction the sale of petty estates, and if he was reluctant to dispose of such estates more unreservedly, it was not because the policy had no recommendations in his mind, but because he was desirous of approving a change of practice only on such a full appreciation of the facts as the report now under notice enables him to form.

7. While so far concurring in the Board's recommendations, the Lieutenant-Governor must, however, say that in regard to the broad policy to be pursued on this subject, he finds nothing to alter in the principle which is now in force. It is still the wish of the Government of Bengal "that as many Government estates as possible should be retained under direct management, so that the officers of Government may be thereby enabled to gain a practical knowledge of the progress of agriculture, of the extent to which the productive powers of the land have been developed, and of the increased money value of the produce." Mr. Rivers Thompson also believes that the rules formulated in chapter III, Vol. I, Board's Rules, are well suited, if intelligently administered, to give effect to the principle, and he therefore would not change them. But if the Lieutenant-Governor finds nothing to alter in the present policy of Government on this subject, he thinks that the practice may well be improved. Estates of sufficient extent and cultivation to support a managing establishment should of course be retained under direct management; so should estates which, though not now yielding an adequate income, afford reasonable expectations of increased rent, either through an extension of cultivation or otherwise; so should petty estates which, though not fulfilling either of the foregoing conditions, yet are capable of being incorporated with other estates into a fairly compact management circle. These are the principles which are now in force, and all that is needed is to correct the practice by abandoning the charge of estates which do not comply with any of the conditions. The Lieutenant-Governor therefore fully approves of the Board's recommendation, and awaits the result of the examination which they recommend in the concluding (84th) paragraph of the report under notice. That examination should be directed to ascertaining not only what petty estates in each district should be exempted from direct management, but also what system of management—whether that in vogue in the Jeipur Mehals in Bogra, or in the Govern-

ment estates of Chittagong, Midnapore or Pooree—should be retained. For the rest, without desiring now to prejudge the question, the Lieutenant-Governor is disposed to think that more is to be expected from the former system than from the latter; things are more likely to improve under the care of a responsible manager than when the entire responsibility rests on an overworked Collector of a district. Financial considerations, however, will have to be considered, and the Lieutenant-Governor will reserve his final judgment till the circumstances of each district are before him.

8. Coming now to the question of the material condition and improvement of Government estates, the Lieutenant-Governor is glad to find that the matter has already engaged the attention of the Board of Revenue, who promise their thorough co-operation in carrying out that policy of agricultural and administrative improvement which this Government desires to pursue. That policy, as Mr. Rivers Thompson also observes with satisfaction, receives the cordial support of the local revenue officers; and if any doubts remained in the Lieutenant-Governor's mind it need hardly be said that none ever existed, as to the desirability of introducing that policy into the Lower Provinces, those doubts would have been removed by the approval which his proposals have received at the hands of those most competent to judge of their merits. Under such auspices, the inception of a policy of agricultural improvement in Bengal is full of promise. That some initial difficulties have to be overcome in introducing it, the Lieutenant-Governor very readily admits, and from this point of view he considers the explanation which the Board offer for the small progress that has yet been made to be sufficient and reasonable. A good deal has to be done in preparing the way; but in this, as in many other affairs, a beginning is half performance.

9. It is desirable, as connected with the review of last year's operations in Government estates, to consider briefly what has been done in the way of improvements in them; from what has been done to what should be done will be an easy transition.

In the Burdwan Division little was attempted during the year under report except in Midnapore, where some drainage channels have been cleared out in the Majnamutha and Jellamutha Estates. Efforts will, it is stated, be made to induce the ryots of these estates to grow more valuable crops; but there is such a feeling of unrest still prevalent among them from the recent litigation that the Commissioner is not hopeful of success. Neither is the Lieutenant-Governor hopeful of success from spasmodic efforts to introduce staples, which may not be suited to the soil or the aptitudes of the people. It is not thus that progress is to be made, but by well-informed, continuous, and systematic action on principles which will be stated later on.

In the Presidency Division also no efforts were made in any district to effect material improvements except in the 24-Pergunnahs, where some drainage and reclamation work was prosecuted. The Collector states that a better system of agriculture is not needed at present in his district, and Mr. Rivers Thompson is not prepared to dispute that statement. But agriculture is only one out of the many directions in which Government estates afford opportunities for improvement. Methods of treating produce, communications, sanitation, water-supply, land tenures, all these questions, and many others concerning the indebtedness and generally impoverished condition of the ryots, afford openings for improvement no less advantageous than improvement in the mere system of cultivating the soil. The following passage from the report of the Collector of Nuddea affords an example of the extent to which a system of land tenure may depress industry, and of the probable advantages to be derived from its gradual abolition. (It also furnishes a comment on the arguments of those who erroneously declare that the classification of utbundi lands as ryotti in connection with the Rent Bill would be injurious to the interests of zemindars):—

"Utbundi ryots having no rights, take no interest in the improvement of the lands temporarily held by them, and the prevalence of the utbundi system in this district has resulted in the inferiority of the soil, and the consequent neglected state of such mehals under khas management. These ryots only cultivate a portion of a mehal, without caring to bring the whole estate under cultivation. The greater portion of a mehal, therefore, remains uncultivated throughout the year, and is overgrown with weeds and bushes, and at last becomes wholly unfit for cultivation. The intention of the Government in bringing

estates under khas collection, and in extending this system to all Government estates, is frustrated. The estates in this district, in which the *utbundi* system obtains, have lost much of their importance, and have not derived any of the benefits likely to accrue from khas management.

"To bring such estates under cultivation, and to improve the soil, I would suggest that the mehals may be let out under the system of *jummia rates*. The fixity of low rates, lower than those obtained by the *utbundi system*, will no doubt induce cultivators to accept leases on such terms, and encourage them to improve the soil by bringing lands under cultivation, at least with a view to pay the rent assessed upon their holdings. The cultivators will then know that the lands are their own, and that they will not be ejected as tenants-at-will are. Their interest in the land will thus be increased, and it may be expected that they will spare no pains to improve the condition of their holdings."

In the Rajshahye and Cooch Behar Division something was done in the way of improving communications in Julpigoree and Darjeeling, and in the Bogra Khas Mehals tanks were dug, roads repaired, and Beheea sugar presses bought for the use of the ryots. In the Chittagong Division some small expenditure was incurred on roads, and Rs. 4,477 were expended in the Backergunge district of the Dacca Division, where some tanks were repaired. In the Chota Nagpore Division the total expenditure did not exceed a few hundred rupees, and the same may be said of the Bhagulpore Division, where, however, some hopes are entertained of popularizing the cultivation of arrowroot in some Government estates. In Orissa the only considerable expenditure was in the Khoordah Estate, where Rs. 11,360 were spent on drainage, irrigation, and embankment work, and some efforts made to introduce the cultivation of cotton and a better kind of sugar-mill. In the Patna Division, where, owing to the density of the population and its pressure on the soil, improvements are more needed than perhaps in any other portion of the Province, so little was done in the way of agricultural improvements in Government estates that the Board rightly remark "it is not to be expected that Government will rest satisfied with the somewhat half-hearted and abortive attempts that have been made to give effect to their wishes."

10. From the preceding summary of the facts stated in the report, it can hardly be denied that if the ryots in Government estates have by punctually paying their rents deserved well of their landlord, their landlord might during the last year have done more for the ryots. However, the Lieutenant-Governor does not now desire to dwell on past shortcomings: he prefers to look forward to the future with hope rather than with regret to the past; and besides, he admits that there is some force in the following remarks—especially the concluding portion of them—which the Commissioner of the Presidency Division offers in explanation of the poor progress made in his division during the year:—

"It will be observed that no efforts have been made to introduce the cultivation of ~~new~~ staples, nor have any steps been taken to adopt an improved system of agriculture. But it should be borne in mind that most of the estates are petty. The only estate in which agricultural improvements might be introduced is the Panchannogram estate; but the agricultural population are in this, as in other matters, conservative and superstitious to an extent which renders it impossible to introduce, with any chance of success, improvements either in the method of cultivation or in the way of growing more paying staples. They have their traditional system of cultivation, from which they will not deviate an inch and their traditional staples are paddy and sugarcane, which they can opportunely and readily dispose of in the local markets. It should also be borne in mind that Collectors and managers of estates are not practical farmers or agriculturists, and unless an officer has naturally a turn for such matters, his experimental farming, as at home, is apt to turn out a failure instead of a blessing. Add to this that all officers are overburdened with clerical work, and the reason of the failure to introduce or encourage the introduction of new staples, or new experiment in agriculture is not far to seek. To enable an officer to do anything of real use in this line, he must first be trained himself in agricultural matters; and secondly, be allowed an agricultural staff. His managers, Deputy Collectors, and Sub-Deputy Collectors are generally as ignorant of agricultural matters as himself, and any expectations for improvement in district agriculture, where the local officers know nothing about it, are not likely to be realized. An Agricultural Department is not only needed with the Government of India, but in every district; and until this want is supplied, the suggestions which are liberally made by the Agricultural Department cannot be practically acted on in districts."

The Board of Revenue are of opinion that the view which Mr. Monro takes in the matter is correct, and Government has practically admitted that it is so by the scheme which has been drawn up for the formation of an Agricultural Department. That scheme has a twofold object, firstly and chiefly improved

management of landed property, based on a more accurate knowledge of agricultural statistics than we now possess; secondly (and, for the present, secondarily), improvement in the system of agriculture and introduction of better agricultural appliances.

Taking the second object first, the Lieutenant-Governor desires to prevent misconceptions regarding his intentions by stating that it is not his object to enter on a crusade against the system of agriculture generally pursued throughout these Provinces. That would be as hopeless an undertaking as it would be uncalled for. No one is more ready than the Lieutenant-Governor to admit that, looking to the means and appliances at the disposal of the Bengal ryot, he usually gets as much out of the soil as it is possible for him to get. So far as non-scientific agriculture is concerned, there is probably but little to teach him; while scientific farming is not now, and for some time cannot be brought, within his reach. Indications, however, are not wanting that the Bengal or Behar ryot is ready to adopt improved ideas as regards the use of agricultural implements and appliances, new staples, better seed, and improved methods of treating produce, if only these innovations are brought within the range of his scanty means, and recommended by successful practice. To bring such improvements within the ryot's reach, and to tempt him through his self-interest to adopt them, are among the objects which the Lieutenant-Governor has in view for an improvement in the present primitive mode of agriculture throughout the country.

In connection, therefore, with his scheme for an Agricultural Department in these Provinces, the Lieutenant-Governor has established an Experimental Farm in the Nasrigunge Government Estate, in the Shahabad district, which, if it prove successful, may justify the establishment of other farms of the sort in other portions of the country. The Nasrigunge Farm will be under the charge of Mr. D. J. Macpherson, c.s., who has shewn aptitude for the work that will be required of him; and in connection with the farm, the Lieutenant-Governor trusts that it may be found possible to utilize the services of some of the distinguished native students of the Cirencester College. At the farm thus established attention would be directed, on the principles stated above, to all questions of improved tillage, introduction of new staples, improved manuring, selection and distribution of good seed, adoption of mechanical appliances, garden cultivation, arboriculture, canal irrigation, well-sinking, and the conduct of agricultural exhibitions. Eventually the teachings of a Veterinary College to be established may be utilised by the same Department in the breeding and care of cattle. In this way the Lieutenant-Governor thinks that much might be done to improve the condition of Government and Wards' estates.

11. Experiments in agriculture, however, are the least important portion of the Lieutenant-Governor's scheme. His chief object is to provide thoroughly efficient managers for Government and Wards' estates in order that these estates may be for zemindars throughout the Province not only models of efficient collections of rent, but models of efficient management in the widest and best sense of the term. The Lieutenant-Governor's intention therefore is that the experimental farm which he proposes to establish should be a training school in which selected officers of Government, both Covenanted and Uncovenanted, may become acquainted with correct and liberal principles of land management, and in which they may become imbued with the policy, and informed of the most promising methods of fostering agricultural improvements. There will thus be opportunities not only for the acquisition of knowledge regarding zemindari matters generally, and the efficient management of estates, but also for the introduction of agricultural improvements in a portion of the country where the pressure of population on the soil renders such improvements desirable and more practicable than in more sparsely inhabited tracts, and where there is in the farming aptitude of the people a strong probability of successful imitation outside the limits of the estates themselves. The principles and practice which officers will learn in the Government experimental farm and training school will be enforced by them in the properties to the charge of which they may be afterwards appointed, and thus intelligent views as to the treatment of tenantry and a progressive agriculture would have a better chance than now of permeating the country. In order to give wider scope for a practical enforcement of the lessons to be learnt at the training school, the

Superintendent of the Farm will be appointed manager of the numerous Government estates in the Shahabad district.

This aspect of the proposed farm and training school is, therefore, one on which the Board of Revenue is specially interested in its capacity of Director of the Land Revenue Administration of the Province. At the present moment it is to be feared that managers of wards' estates and Government khas mehals too often think that the collection of the demand and reduction of balances is the sole object of their official existence. The Lieutenant-Governor wishes to instil into the minds of all such officers a higher principle of duty, and by practice as well as by precept to teach them that it is as much their business to attend to the welfare of the tenantry entrusted to their charge as it is to collect rents.

12. Briefly summing up then what has been said—at the farm, worked on the principles thus outlined, Mr. Rivers Thompson would station for a limited period of time certain officers afterwards to be employed in the management of landed property, and he would have them learn from the daily well-ordered routine of the farm operations a knowledge of practical agriculture, so that they may, when they reach independent positions, be able intelligently to appreciate what they see around them, suggest corrections, and introduce reforms. He would have them trained in land surveying, in a knowledge of soil classification and of the suitability of various crops to each soil class, in opportunities of ascertaining the due proportion which rent should bear to produce, in order that they may realize the claims and needs of the tenantry in estates committed to their care. They would also become by practice acquainted with the intricacies of zemindari forms and accounts. These and other similar details of land management, if learnt at such an institution as the Lieutenant-Governor desires to see at work, will fit men for the performance of duties which, looking to the opportunities for good presented by them, are perhaps as responsible as any others under Government, but which now are too frequently entrusted to officers with no previous training, and often no aptitude for such avocations.

13. Such is in outline the objects which the Lieutenant-Governor has in view. He is glad to note that they have already received cordial acceptance at the hands of the Board of Revenue and the local revenue officers, than whom there could be no more competent judges either of their necessity or of their practicability. It is recognised that it will take some time for such a policy of improvement to produce effects, but it starts at any rate under good auspices.

By order of the Lieutenant-Governor of Bengal,

A. P. MACDONNELL,

Offy. Secretary to the Government of Bengal.

RESOLUTION ON THE REPORT ON THE ADMINISTRATION OF WARDS
AND ATTACHED ESTATES FOR 1882-83.

REVENUE DEPARTMENT.—LAND REVENUE.

Darjeeling, the 21st October 1883.

RESOLUTION.

READ—

The Report of the Board of Revenue on the Administration of Wards' and Attached Estates for 1882-83.

The Board of Revenue have themselves submitted their report on this important department of the administration with commendable punctuality; but they bring the fact to notice that four out of the nine Commissioners were behind time with their reports owing to remissness on the part of managers. So long as the Board's report reaches Government in time, it may be left to the Board to deal with unpunctuality on the part of officers subordinate to them. In any steps they may deem necessary to take for that purpose, the Board will have the Lieutenant-Governor's support.

2. The Board prefix to the report a skeleton map of the Lower Provinces. The map is on a small scale, and the situation of none of the estates dealt with in the report is shown on it. It would not be difficult to arrange that the position of the different estates should be, as far as possible, shown in the maps submitted with future reports. There were during the year 117 wards' and 91 attached estates, making a total of 208 estates under the Board's control. This shows a decrease of ten estates (seven wards' and three attached estates) compared with the numbers shown in the preceding year. "The discretionary power which the present law allows to the Court of Wards of declining to accept the charge of an estate which the civil court desired to entrust to it, has been exercised during the past year in six instances; the considerations which actuated the Court of Wards in refusing the charge being that the estates were too small or involved in debt. In five cases the parties interested applied, and for similar reasons the Court of Wards declined to take charge." The policy which the Board pursued in these cases has the Lieutenant-Governor's approval.

3. In their broadest aspect the financial operations of the year under review may be thus summarised. The year opened with a cash balance of

* As the closing balance of the previous year was Rs. 15,88,125, the receipts amounted to Rs. 62,92,899. During the same period the gross expenditure was Rs. 61,11,442, leaving a balance of Rs. 17,3⁴,578 (which is less than the balance given in the Board's report). The investments, which were valued at Rs. 24,71,005 at the close of 1881-82, stood at Rs. 21,05,0⁰ at the close of 1882-83. Although the report does not specifically say so, doubtless the reduction was due to the release of estates from the Court's control during the year.

4. In reviewing last year's report, the Lieutenant-Governor observed that management charges should not, except for special reasons, exceed 10 per cent. on the annual income. During the last year the current demand of rent from wards' and attached estates amounted to Rs. 52,73,981, and the current demand of cesses to Rs. 3,46,057. The cost of management during the same period amounted to Rs. 5,63,405, excluding certain items for repairs to buildings, and for surveys and settlements, which are not properly debitable to management proper. It therefore appears that management charges proper do not, on the average, now exceed the limit which the Lieutenant-Governor thought reasonable. There has been, during the year, a reduction in those charges in the Rajshahye, Burdwan, Presidency, Bhagulpore, Orissa and Chota Nagpore Divisions, the reduction being specially marked in the Rajshahye Division, to the high charges in which the Lieutenant-Governor took exception last year. The charges are still high in Rajshahye, Patna, and Bhagulpore; but, as the Board have already responded so effectively to his wishes on the subject, Mr. Rivers Thompson thinks it only necessary here to express the hope that the matter will continue to receive their attention.

5. Coming now to the financial details of the year's administration the Lieutenant-Governor observes that it began with an arrear demand of

Rs. 40,56,283 rent, and Rs. 3,62,483 cesses. The current demand raised the amount of rent due to Rs. 93,30,264, and of cesses to Rs. 7,03,510. The total collections on account of rent were Rs. 51,36,121, or 97.3 per cent. on the current demand; while on account of cesses Rs. 3,25,730, or 94.1 per cent. were realized. On account of rent Rs. 5,25,427 were remitted, and on account of cesses Rs. 23,830. The outstanding balances of rent and cesses at the year's close were therefore Rs. 36,68,716 and Rs. 3,58,980 respectively. These undoubtedly are large arrears, and the fact that at the close of the year the cess arrears remained in excess of the demand is, as the Board observe, "a very unsatisfactory feature in the cess transactions." Still the results show some, though a very slight, improvement on the preceding year, and the Lieutenant-Governor trusts that this improvement will become more marked as further progress is made in the way of revising rent-rolls and writing off bad debts. Mr. Rivers Thompson observes with much satisfaction that the Board have already done a good deal in accordance with the views expressed in the 5th paragraph of the Resolution on last year's Report, in the direction of classifying arrears and revising rent-rolls. When this classification and revision is complete, the next step will be to remit bad and irrecoverable debts, and push on the realization of good ones. This report shows that over ten lakhs of doubtful and bad debts serve to swell the arrear demand. It is true that more than half had accrued before the estates had come under the Court's control, and the Board's contention is undoubtedly correct that nearly all of these require individual examination before they can be dealt with on their merits." No doubt examination is necessary, and should be carefully made; but at the same time it must not be forgotten that the existence of unrealizable arrears exercises a depressing effect which makes a tenant a worse rent-payer than he would probably be were the demand on him no more than he could meet. With reference to the correspondence which has passed during the year upon the subject, it is gratifying to receive the Board's assurance that wards' estates in these Provinces are not as a rule over-rented (though it is admitted that the rule is not universal); and that the present policy of the Court of Wards is against enhancements. The Lieutenant-Governor is specially glad to receive this assurance, not only because it controverts the popular idea upon the question, but because, in his judgment, the tenantry need rest; and he trusts that in those cases in which on examination rents have been found too high, no avoidable delay may occur in reducing them. If fair rents be the policy of this Government in its own estates, that policy must be enforced no less in wards' and attached estates. It is due to the Board of Revenue to give prominence to the following paragraph in their report, which deals with this matter:—

"The question of the reduction of arrears and of the assessment generally, in the estates under its management, has engaged the careful attention of the Court during the past year. The remarks which appeared in the Secretary of State's review of the Board's report for 1880-81, on the subject of over-assessment, prompted the Board to make an examination of the existing assessments of rent on the tenants of the largest wards' estates, viz. in each of the estates, twenty-two in number, of which the annual demand exceeds Rs 50,000; and the result has brought to light one estate only in which the Board have any reason to fear that the balances are due to any enhancement of rent made under the Court's management. The rates in this estate were increased after survey and resettlement in 1875-76, when high prices ruled; but as enhancement was not one of the contemplated objects of the survey, the local authorities have been directed to apply a remedy, now that the existence of over-assessment has been discovered. The examination of the affairs of the remaining estates disclosed no ground for supposing the existence of excessive rentals, and in fact the policy of the Court of Wards is to discourage enhancements; and it is believed to be the case that in very few estates have the rates of rent been raised during the period in which an estate has been under the Court's management. Where the rent-roll has been increased, the increase is almost entirely attributable to the resumption of direct management on the expiration of farming leases, or to the assessment imposed on waste lands brought

* Submitted to Government with Board's letter No. 1A, dated 2nd January 1883,* and January 1883. The Board then pointed out that there was not necessarily any connection between the existence of a large balance and an excessive rent-roll. They wrote:—'It may be that, in some cases this relation exists: but the Board believe that, in most cases, it is beyond all dispute that the existence of a large balance is due to other causes. When an estate comes under charge of the Court of Wards, it is almost invariably found that the rent-roll is encumbered with a large arrear balance, much of which is practically

unrealizable. It is not customary among the landlords of this country formally to remit old arrears of rent, however unrealizable they may be. Even arrears which are hopelessly barred by limitation are retained on the books. When the estates come under management such demands have to be written off: such as are barred by limitation are easily swept off. But many of the old balances have been kept alive by instalment bonds executed to the former proprietors. In one extreme case the instalments are reported to extend over a period of fifty-three years. Even these require individual examination before they can be dealt with on their merits. The removal of all fictitious and hopelessly irrecoverable balances is a matter which has been pressed on the attention of Commissioners, Collectors, and managers of estates during the past year, and they were also asked especially to consider and report upon the question of rack-renting and enhancements. The remarks of the officers consulted are reproduced at some length in the divisional sections of this report; and it will be seen that opinions are confidently given that there is no rack-renting in any of the wards' estates. In many cases adjustments of the rent demand have been made, which have resulted sometimes in enhancements, but more frequently in reductions. The instances, however, in which enhancements have been made are very few, and complaints of over-assessment are a rarity. The worst instance reported is that of the Nuddea Raj, in which it seems to be established that rents are in many cases too high, and that the ryots are impoverished in consequence. Orders will now be issued for the immediate revision of these rentals. But it will be observed that these over-assessments are not due to any action taken by the Court of Wards during the period of its management. In the Narhan estate in Durbhunga, the result of special inquiries made by the rate officer showed that enhancements had been made by thikadars in the time of the late proprietors, which were quite beyond the range of rise in prices. It is impossible for the Court of Wards to interfere with these enhancements until the farming leases expire; but in villages held khas, where complaints of over-assessment are well-founded, reductions in the rates are always allowed. There is only a single instance in which a district officer is found to assert that the Secretary of State has been correctly informed that over-assessment prevails in wards' estates; but his opinion has been challenged by the Commissioner. The district officer concerned, the Collector of Shahabad, has been called upon to substantiate his views."

The Lieutenant-Governor will be glad to receive the further explanations called for.

6. Reference was made in last year's Resolution to the abuse of the certificate procedure in recovering arrears in wards' estates; and it was pointed out that if Collectors exercised care in issuing certificates, no room for such abuses would be left. On this subject the Board now say that although abuses have been detected in some districts, there is no reason to fear that they are prevalent to any great extent. The matter is one, however, in which any relaxation of care on the part of Collectors would beget abuses, and from this point of view the Lieutenant-Governor approves the following remarks which the Board quote in this connection from their Land Revenue Report:—

"The increase in the number of certificates filed for the recovery of demands in wards' estates in the 24-Pergunnahs has led the Collector to remark that the rent collectors under the managers, to save themselves the trouble of making collections, report the ryots as defaulters, in order that the certificate procedure may be resorted to; and similar remarks against managers appear in the report of the Commissioner of Bhagulpore. This practice has been already condemned by the Board, and in a recent circular order they have pointed out that it is not intended that certificates should be filed in any cases in which suits would not have been instituted under the former procedure, and that it rests with Collectors to exercise due care and discretion in the making of certificates, so as to leave no room for any misapprehension of the practice. A manager should not sit in his office and write out certificates by thousands but should stir up his assistants to push on collections, and not until all reasonable means short of suits have failed should he have recourse to the certificate procedure."

The number of certificates filed during the year was 12,409, and there were 7,759 pending from the preceding year. The number disposed of was 13,400 and the number pending at the year's close 6,768, which shows a diminution upon the corresponding figures for the preceding year. The Board think that, looking to the number and size of wards' estates, the number of certificates filed is not unduly large. If the Board could in future reports give the aggregate amount of rent for which the certificates have been filed, the Lieutenant-Governor would be better able to form a judgment on this point.

7. Turning now to the liabilities of wards' and attached estates there are three points to be noticed—liabilities to Government, to superior landlords, and to general creditors. Liabilities to Government consist of revenue and cesses, the former of which amounted to Rs. 20,01,228 (including Rs. 1,10,530

arrears) and the latter to Rs. 5,08,700 (including an arrear of Rs. 69,787). Out of the revenue demand, Rs. 19,18,561 were realized, leaving a balance of Rs. 72,215, and out of the cess demand, the realizations amounted to Rs. 4,58,082, leaving an outstanding balance of Rs. 69,787. The Lieutenant-Governor understands that since the close of the year something has been done towards reducing those balances, but he must agree with the Board in thinking that the collection of cesses has not been satisfactory.

The rent due by the estates to superior landlords amounted during the year to Rs. 3,94,390, one-third of which was arrears of previous years. The payments amounted to only Rs. 2,64,529; and the year closed with an arrear balance which was almost as large as the balance with which it opened. This again is not satisfactory. The largest arrears are due from the Presidency and Dacca Divisions, and it is very desirable that, during the current year, special attention should be directed towards putting matters on a better footing in these divisions.

The total debts due by the estates to other creditors amounted during the year to Rs. 41,84,874. Of this sum Rs. 5,24,217 were paid or reduced by compromise, leaving Rs. 36,60,657 due. The progress made in liquidating debts, though fair, was not as good as in the preceding year.

8. In the Resolution on last year's report, the Lieutenant-Governor requested that the subject of agricultural improvements in wards' estates might be touched on in the Board's general remarks. The Board now respond to this request by giving a table of the expenditure incurred on improvements generally, which shows that Rs. 34,478 and Rs. 16,252 were expended for the support of schools and dispensaries respectively, that Rs. 1,23,593 went towards repairing and maintaining the immoveable property of the estates, and that Rs. 72,576 were spent on landed improvements. "During the year," it is said in the Report, "Rs. 72,576 were spent on such works as the construction and repairs of embankments and bunds for the protection of lands from inundation; the construction of channels, khals, and wells for the irrigation of lands; the excavation of new tanks and the clearance of old ones for the supply of good drinking water; the introduction of new crops; the clearance of jungles; and the purchase of agricultural implements. In furtherance of the policy above indicated, the Board have requested the local officers to submit proposals for projects of improvement which will entail any considerable expense, and to consider and discuss the question of how the incidence of the cost is to be ultimately distributed between landlord and tenant. It has been pointed out that some improvements may be such as a wealthy landlord may well be expected to make at his own final cost, although the direct benefit will go to the tenants only. In other cases the improvement may be such as, probably, to bring an immediate return to the landlord himself, such as the reclamation of lands. But in many cases the main direct benefit from the improvement will be an increase of the profits of the tenants. In such cases it would be reasonable to expect them to bear a fair share of the cost. In some cases they may be willing to do this by a direct contribution; in others they may agree to repay a certain portion of the cost in annual instalments; sometimes they may be willing to pay a moderate enhancement of rent. The reports of the local officers are now being received and considered by the Board, and it is expected that, in the current year, a larger expenditure will be incurred on works of improvement. It should, however, be mentioned that in estates let in patni and farm, or which are heavily involved in debt, or held with co-sharers who are unwilling to bear a fair share of the expense, as well as in estates which are small and scattered, no improvements can be undertaken in this direction." Accepting the views expressed in this passage, the Lieutenant-Governor would modify them on one point. He does not think it desirable to bargain for an increase of rent before improvements undertaken by the landlord are completed. Apart from the danger of disputes regarding the fulfilment of the bargain, there is the danger that the expenditure might not actually result in an improvement. The Bengal Tenancy Bill will, it is hoped, secure to the landlord the full benefit of improvements effected at his sole expense, and that ought to suffice to stimulate improvements without the adoption of a speculative policy, in which the only certain factor would be an enhancement of rent.

9. The Court's attention was specially drawn last year to the necessity of prosecuting a systematic field survey, conjoined with the preparation of a record of rights, in all estates in which the circumstances were favourable to such operations. Mr. Rivers Thompson is very strongly convinced that no measure is more essential to the full development of any policy of agricultural improvement in Bengal than a detailed survey of estates with a complete record of all rights upon the land ; and whatever the practical difficulties in their prosecution, there can be no assurance of peace or progress till they have been carried out. He is therefore glad to find in the Court's present report that the matter has received their attention. The orders which the Board of

• Board's letter No. 851A of 14th September to all Commissioners. Revenue have issued on the subject* have the general approval of Government, and there can be

no doubt that perseverance in the policy thus adopted, conjoined with the enforcement in wards' estates of those principles of reform which have been prescribed for Government estates, will, within a short period of time, have their due beneficial effect in improving the condition of the tenantry and the value of the estates. The abandonment of such proceedings in the case of the large estate of Mysadul in Midnapore was unavoidable in view of the short period which remained of the Board's administration. In other cases the objections raised to a survey on the side of proprietors, because it would lead to the ascertainment of fair and equitable rates, and on the side of ryots, because it would disclose larger areas of land than they are supposed to hold, show the existence of just those uncertainties on material points which must always be a fruitful source of litigation and dispute.

10. The Lieutenant-Governor has read with great interest the remarks which the Board make as to the condition of the cultivating classes in Government and Wards' estates, and the feelings with which they regard their position as tenants under Government. The subject has been prominently dealt with by most of the Commissioners, though still much is wanting to exhibit actual facts in all their details. From what has been written, however, it is evidently the general opinion of responsible local officers that ryots in Government estates are somewhat better off than tenants in private estates, and that opinion the Board do not contest. Acceptance of it, however, does not prevent the Board from making the significant remark that they "are glad to find that a beginning has been made, however small, in establishing the policy of Government, which declares it to be the duty of a manager of an estate to be as much interested in preserving the welfare of his tenants, as he should be in maintaining a well-adjusted rent-roll. The Board have no doubt that the attention which has been directed to the subject will, as the managers become more and more aware of what is expected of them, lead to more marked results in this direction than are disclosed in the present report." The Lieutenant-Governor is quite certain of the co-operation of the Board, and of all local officers, in the policy now accepted on this subject. His desire and aim is that the condition of ryots in Government and Wards' estates should soon become, where it is not now, a model for imitation in the neighbourhood ; and he is glad to find from many notices in the appended reports of local managers a higher appreciation of the work devolving upon them, not simply as rent-collectors, but as concerned in the development of the material interests of their respective charges.

11. The remarks which the Board make in their 20th paragraph on the education of minors raise some important questions on which the Lieutenant-Governor will take an early opportunity of addressing a separate communication to the Board. From the information contained in the divisional abstracts, the Lieutenant-Governor fears that there is much room for improvement in the system of educating minors.

12. The following summary of the detailed reports notices the chief points of interest in each case.

13. *Burdwan Division*—The current demand of rent and cesses from the 17 estates under the Court of Wards in this division amounted to Rs. 8,70,861. The collections were Rs. 7,96,016, or 91.4 per cent. on the demand, against 81 per cent. in the previous year, the improvement being chiefly due to better collections in the old estates in Midnapore. Rs. 95,536 were remitted, of which Rs. 62,211 were due from Mysadul. The

outstanding balance at the close of the year was Rs. 9,67,242, nearly half being due from the Sultangacha estate, which has recently been taken under control with large arrears of bad debts. The very large balance (Rs. 3,95,506) due from the Mysadul estate is almost wholly attributable to the vicious system that prevailed in the time of the proprietors of leasing large properties to men of straw. Earnest endeavours are being made to remedy matters. The total stock of Government securities amounted to Rs. 4,84,900, out of which a three-anna share of the Tumlook zemindari, with gross assets of Rs. 37,270, was purchased. Works of reclamation to an appreciable extent have been going on for about the last three years, and among other agricultural appliances the paddy-husking mill has been recently introduced. The management of Chowghoria shews worse results than in the preceding year. The estate consists of numerous small shares, &c., scattered over several districts, and is difficult to manage; but efforts are being made to improve matters by getting rid of unprofitable shares. The debts (Rs. 1,34,806) in Jhargram were further reduced by Rs. 23,757, and the rate of interest has been reduced. Attempts are being made by selling a portion of the lands to clear the liabilities of the Beraberia estate, which was heavily involved when taken under management in 1881, and of which the income is very limited. Of the three estates brought under the Court of Wards during the year, Sultangacha alone, of which the gross assets are Rs. 1,49,215, is of importance. It is divided into six tehsils, and the management charges are 8 per cent. on the demand. Arrangements are being made to liquidate the debts of the estate, amounting to over a lakh of rupees, by a loan and by the sale of some of the houses.

The total cost of management of all estates represents 9.9 per cent. on the current demand, which is satisfactory, but the outlay (Rs. 12,000) on works of improvement seems inadequate. The Commissioner thus explains the inadequacy: "The range of usefulness in the matter of improvements is limited, first, by the necessity of spending large sums to keep our estates in existence, and next, by the poverty and backwardness of the rural classes, which prevent them from being either able or willing to avail themselves to any large extent of the improvements which may be brought within their reach. When due allowance is made for the above facts, it will not, I think, appear surprising that we are unable to show a more imposing list of improvements in wards' estates." Rectification of rent-rolls has been found necessary in some cases, the result being generally in the direction of reduction and not of enhancement. Such increase as has taken place is said to be due to the reclamation of waste lands and the falling in of old farms. The loss of crops in some estates, and the continuance of malarial fever in a few localities, impoverished and depressed the ryots to some extent.

The arrangements for the education of the minors continue satisfactory, and fair progress is being made by the boys. Such minors as are of mature age are being instructed in zemindari work.

14. *Presidency Division.*—Five estates, including Narail, out of the 26 in

Wards' estates	...	...	19	this division shown on the margin, submitted no
Attached „	...	...	5	returns. The current demand on account of the
Trust „	...	...	2	remaining 21 estates was Rs. 16,49,608, and the

collections amounted to Rs. 16,42,109, or 99.5 per cent., against 98.2 per cent. in the preceding year. The total net balance at the close of the year was Rs. 14,33,521, of which more than three-fourths was due to the Cossim Bazar and Satkira estates. The cost of management represents 8 per cent. on the current demand. The contributions to schools were Rs. 9,413, chiefly from the indebted Cossim Bazar and Satkira estates, and those to dispensaries were Rs. 3,107. Repairs of buildings cost Rs. 28,127, almost wholly in Nuddea and the above two estates. Of the Rs. 13,519 expended on works of improvement, Rs. 9,090 were laid out on the bazaar and the Sonadinghi Slaughter-house in the Orphangunge estate at Kidderpore, and Rs. 2,055 on repairs of dák bungalows, embankments, &c., in Port Canning. The expenditure on agricultural improvements in this division was insignificant.

The collections in Nuddea amounted to 107.3 per cent. on the current demand, but though the financial results of the year are satisfactory, the condition of the tenantry is represented as deplorable. Continued fever, crop failures, losses from low prices, sales of cattle in execution of decrees for

debt, relinquishment of holdings, and general depression,—these are the chief features of the manager's report. Last year the suspicions of the Lieutenant-Governor were aroused regarding the management of this estate, and in the report under notice the manager seeks to justify his administration. While giving Babu Kartik Chunder Roy, who is an old and devoted servant of the Raj, credit for good intentions, Mr. Rivers Thompson must say that this officer's ill-success in raising the condition of the estate and the tenantry has been marked; and that ill-success is not excused by the fact that an admittedly excessive rental has been recovered with punctuality from a perishing tenantry. It is not satisfactory to read that the profits of the ryots on this estate "are in some cases nil, and in some cases very small," nor is the silence of the tenantry an argument for inaction. The Lieutenant-Governor will await the result of the enquiry which the Board are now making into the condition of this estate, and he would wish it to be, if possible, made by a selected officer accustomed to enquiries of the sort. The minor Raja of Nuddea was removed to Berhampore, and is under the care of his tutor, Mr. Oswell. He is improving in his studies, and his conduct is satisfactory.

The accounts of the Narail estate are still in disorder: it remains to be seen whether the recent arrangements by which a portion of the estate has been farmed out will lead to better management. The tenants continue to be generally prosperous. Both the minors are now in the Calcutta Hare School, but the elder is not making satisfactory progress. The Bogchur estate was released after 12 years' management, the general condition of the tenantry being prosperous, and their relations with the estate satisfactory.

The collections in Ramnagar show further improvement, being 114 per cent. on the current demand. A splendid harvest has made the ryots prosperous and contented, and good relations continue between them and the management. Similar good results are reported from Syudpore. In the Nashipore *mal* estate the year's results were also very satisfactory, but this is not the case in the Nashipore *debutter* estate, where the collections fell off from 106.5 per cent. to 95.7 per cent.—an unsatisfactory result, seeing that the entire property is let in *patni*. The minor continues to attend the Berhampore Collegiate School.

The total demand in Cossim Bazar was Rs. 8,46,743, and the collections amounted to Rs. 2,88,255, or 97 per cent. on the current demand. Of the balance, which is over $5\frac{1}{4}$ lakhs, a very large proportion accrued during the late proprietor's time and is classified as bad or doubtful. Large remissions have been already granted, and measures have been taken to adjust the arrears and to eliminate all fictitious demands from the accounts. Attention is being given to the reclamation of jungle lands and to the excavation of tanks where necessary. The ryots of Sarail, between whom and their former landlord very contentious relations existed, are reported to be prosperous. Illegal demands are no longer made, confidence in the Court's management is growing up among them, and it is hoped that within a short time the whole class of tenantry will forget their old feelings of rancour towards their zemindar. The minor, who is very young, is under the guardianship of his mother.

The rent and cess collections in Satkira were less than in the preceding year, and the subject is receiving special attention. The rent balance, however, though large, amounting to about $4\frac{1}{4}$ lakhs, is classified as good and under recovery. The law charges are steadily increasing. The small sum of Rs. 11,014 only was paid towards debts amounting to Rs. 1,90,726. Want of funds, and the difficulty of securing the co-operation of the sharers, render arduous any attempt at carrying out schemes of improvement. The peasantry of the estate are prosperous. The wards, who attend the Calcutta Hindu School, are making little progress in their studies.

It is stated that except in the Nuddea estate no portion of the balances in this division is the result of an excessive rent-roll. In that estate the Board have taken up the question of an immediate revision of the rental, and the Lieutenant-Governor will await the result of the enquiry. With this exception, the management of all the estates in the Presidency Division is described as liberal and fair to the ryots, and no enhancement of rents has taken place in any estate during the management of the Court.

15. *Rajshahye and Cooch Behar Division.*—The total demand, arrear (Rs. 5,22,698) and current (Rs. 7,74,988), was Rs. 12,97,686, and the percentage of collections (Rs. 7,70,306) on the current demand was 99.3 against 101.4 in the preceding year. The balance outstanding was Rs. 4,12,321, of which more than half was in the Chaklajat. The management charges proper were 14 per cent., but some reductions have already been effected and others are in contemplation. Hardly anything was done in the way of improvements except in the Chaklajat, where Rs. 17,000 were spent on improvements which may fairly be considered agricultural.

Two estates—Tahirkpore *Senior Branch* in Rajshahye, and Hazratpore in Dinagepore—were released in 1881-82, having been under management for over 15 and 10 years respectively. In both cases the management was a success. All debts due to and by the estates—some very trifling sums excepted—were satisfied. The rental of Tahirkpore was raised from Rs. 69,698 to Rs. 85,094, and both properties were restored to their proprietors in a perfectly solvent condition. The owner of Tahirkpore, the Commissioner says, “is a young gentleman who does credit to the Calcutta Wards’ Institution and to our general care. His conduct is excellent in every respect, and he takes great interest in the business of his estate.” In Sunkerpore the collections fell short of the current demand, while in the Churaman estate, compared with last year, they rose from 84 to 99 per cent. The rental of this State has been reduced by Rs. 14,575 owing to abolition of illegal cesses; this is matter only for congratulation. It is hoped that the loss may be recovered by a judicious enhancement of the present very low rents and by assessment of excess lands. The Board of Revenue will doubtless exercise a careful discretion in instituting suits for these purposes. Nearly Rs. 10,000 have been spent within two years on the construction and repair of roads, and for clearing jungle, &c. The ward is again commended. Haripore also shews an improvement in its collections (Rs. 44,153), which exceeded the current demand by 9.3 per cent. The ward, who is under a governess, is making good progress in her studies.

The Rajshahye district again shews indifferent results. In Gobindpore, Puttea, and Mainam these were due to mismanagement, and in the Tahirkpore *Junior Branch* estate the collections fell below the current demand owing to certain temporary causes. In the latter estate a very useful canal was opened out by the tenants at their own cost. The wards are at the Rajshahye collegiate school. The progress of the elder, in consequence partly of bad health, was unsatisfactory. The heavy diminution in the Chowgong collections from 101.3 per cent. in 1881-82 to (Rs. 36,589) 78 per cent. on the current demand in 1882-83 was chiefly due to the low market price of jute in Islamabad, in which the ward has a 10-anna share, and to the settlement of that pergunnah, which considerably interrupted the collections. The measurement of Islamabad has disclosed an area largely in excess of that for which rent was paid, and an amicable settlement has been arranged with the ryots at an increase of 25 per cent. The ward is doing well in his studies. In Bardhankoti the collections, though 100 per cent. on the current demand, fell far short of those of last year, owing to scanty rainfall and a heavy fall in the price of jute, betel-nut, and molasses. This estate has much waste land, which has apparently attracted fresh Garo immigrants. The introduction of new crops and other improvements does not find favour with the ryots, who are averse to trying experiments untried by their forefathers; but a small beginning has been made in the use of the Beheea sugar-mills. The minor is making satisfactory progress in his education. In the Chaklajat the collections were Rs. 3,55,305, or 5 per cent. above the year’s demand, which, though less than those of the previous year, were still satisfactory. Rupees 17,330 were expended on repairs of roads, construction and repairs of embankments, excavation of tanks, and similar useful objects. The resettlement of the estate, now nearly complete, has increased the rental by Rs. 54,566. The owner, the Maharaja of Cooch Behar, attains his majority during the current month.

The Commissioner is satisfied that in a majority of cases the rates of rent are lower than elsewhere in the neighbourhood,—so low in fact that their enhancement is contemplated in three estates. Before action is taken